

2  
CUK-HO 4992-2-RORR

UNIVERSITY GRANTS COMMISSION

Bahadur Shah Zafar Marg

New Delhi

No. F. 2-6/75 (D-3a)

17th June, 1976

The Registrar,  
Calcutta University,  
Calcutta.

*Subject :— Higher Education and Research—Development Schemes  
of the Universities for the Fifth Plan period (1974-79)—  
Acceptance of the schemes by the Commission.*

Sir,

I am directed to say that the University Grants Commission has since considered the report made by the Visiting Committee appointed to assess the development schemes of the Calcutta University during the Fifth Plan period. The details of the schemes accepted by the Commission and which could be taken up for implementation by the University in the first phase are given in the annexures to this letter as detailed below :—

(a) Summary of financial implications (Annexure—I).

(b) Schemes approved during the Fourth Plan period or earlier and which are required to be completed during the Fifth Plan period (Annexure—II).

(c) Schemes accepted by the Commission on the condition that the expenditure would be a charge on the Fifth Plan allocation likely to be made to the University (Annexure—III).

(d) New schemes of non-recurring and Miscellaneous nature accepted by the Commission on the basis of the report made by the Fifth Plan Visiting Committee (Annexure—IV).

(e) Additional posts to be created during the Fifth Plan period on the basis of the recommendations of the Visiting Committee accepted by the Commission and the provision for fellowships (Annexure—V).

RORR

In the implementation of the above programme, the University's attention is particularly invited to the following :—

(i) In the context of overall development of higher educational programme it has become necessary for the University Grants Commission to suggest some modifications to the recommendations made by the visiting Committee in their report to the Commission. A copy of the Visiting Committee's report is enclosed for information of the University. The decision of the Commission in this regard is indicated below :—

(a) The Commission could not agree with the suggestion for separating Honours course from M.A./M.Sc. courses in the departments of Psychology, Anthropology and Physiology and for transfer of Honours courses to Colleges.

(b) The Commission was not in favour of starting post-graduate classes in the colleges affiliated to Calcutta University. The suggestion of strengthening teaching and research programmes in the presidency College, Calcutta and developing it as an autonomous College may be considered separately.

(c) The University and the State Government may take immediate steps to either merge the Institute of Basic Medical Sciences with the post-graduate Institute of Medical Education and Research or provide adequate hospital facilities to the Institute of Basic Medical Sciences. The question of providing assistance to the existing departments in the Institute of Basic Medical Sciences as recommended by the Visiting Committee may be considered only after a decision is taken on this.

(d) A specific amount be provided every year in the Revenue Budget of the University for the maintenance of the University buildings.

(e) A certain percentage of seats in the University hostels be earmarked for research scholars enrolled with the University specially for those who come from outside the State.

(f) The procedure for appointment of teaching staff in the University needs to be looked up by the University and the State Government. The observations made by the Visiting Committee may be kept in view while considering amendment of the University Act.

(g) The University should take immediate steps to fill all the vacant posts in each department and Commission's assistance for the teaching staff approved for a department will be made available only after the existing posts available in that department have been filled.

(h) 50 Junior Research Fellowships being allocated to the University for the Fifth Plan period may be utilized for the development of the research facilities in the existing campus as well as in the new campuses to be opened by the University during Fifth Plan period.

(i) A grant of Rs. 7.00 lakhs for equipment and posts of four Technical assistants including an Instrumentation Engineer may be provided to the University for establishment of a Central Instrumentation laboratory.

(j) A grant of Rs. 3 lakhs for improvement of facilities in the existing hostels and Rs. 1 lakh for furnishing the Guest House be provided as U. G. C. share to the University on 50 :50 sharing basis.

(ii) The Commission has also made several general suggestions with regard to the implementation of development schemes by the Universities during the Fifth Plan period. These are indicated in Annexure—VI. The University is requested to ensure that these suggestions are kept in view at the time of implementation of different programmes.

(iii) Grants for meeting expenditure on non-recurring items accepted by the Commission would be paid in accordance with the sharing basis indicated for each purpose and as per conditions generally prescribed.

(iv) In the case of recurring items of expenditure particularly with regard to additional posts and fellowships etc., the University Grants Commission will pay grants to the University, on the agreed sharing basis and on the basis of actual expenditure incurred in respect of posts filled during the Fifth Plan period. It will be the responsibility of the University in consultation with the State Government to take over this entire expenditure as a committed expenditure to effectively maintain these posts when the U. G. C. assistance ceases with effect from 31st March, 1981.

(v) The University may ensure that the matching share in respect of such schemes, as required, is available before taking up implementation of these programmes.

(vi) The other general conditions relating to the grant to be paid for various schemes accepted during the Fifth Plan period are indicated in Annexure—VII.

The University is requested to consider the various suggestions and conditions relating to the implementation of the Fifth Plan Programme approved by the Commission and inform this office that these are acceptable and that the University is in

a position to fully implement the schemes within the Fifth Plan period. The University may then proceed with implementation of these schemes.

The acceptance of the scheme as indicated above is being communicated in the context of the resources likely to be made available to the Commission during the Fifth Plan period. If, however, the resources position were to improve during the Plan period, the Commission could consider acceptance of other programmes contained in the Visiting Committee's recommendations in due course.

Receipt of this letter may please be acknowledged.

Yours faithfully,  
Sd/—I. K. SANGMA  
*Deputy Secretary.*

## ANNEXURE—I

**Summary of Financial Implications  
CALCUTTA UNIVERSITY**

*(All figures are in lakhs of rupees).*

**A. Non-recurring**

Sl. No.	Item	Amount approved		Remarks
		Rs.	P.	
1.	Spill-over	22.09		Details are given in Annexure—II
2.	Schemes approved in Fifth Plan before Committee's visit.	3.25		Details are given in Annexure—III
3.	Books & Journals	36.60		} Details are given in Annexure—IV
4.	Equipment	38.60		
5.	Building/Furniture	55.60		
6.	Miscellaneous Schemes.	9.80		
		<hr/> 165.94 <hr/>		

**B. Recurring**

- (i) Staff 6 professors, 20 Readers,  
10 Lecturers and 17 Tech. posts.
- (ii) Fellowships Fifty junior Research fellow-  
ships of the value of Rs. 400 per month  
at any given time to be operated as per  
U.G.C. rules.
- Details are given  
in Annexure—V.

Sd/- I. K. SANGMA,  
Deputy Secretary,  
University Grants Commission.

# ANNEXURE—II

*Schemes approved during the IVth Plan period or earlier which are required to be completed during the Vth Plan period.*

Sl. No.	Sanction letter No. & date	Name of the Scheme	Amount payable as Spill-over
1	2	3	
1.	F. 18-9/55(S) dt. 9.4.56	Construction of Building Deptt. of Botany, Zoology & Anthropology.	Rs. 2,500
2.	F. 19-5/57(S) dt. 1.7.58	Construction of Laboratory for the Department of Geology	50,000
3.	F. 4-10/58(S) dt. 19.1.59	Construction of Multi-storeyed Science Building.	5,333
4.	F. 122-10/59(S) dt. 14.8.59	Construction of Building for the Department of Bio-Chemistry.	2,066
5.	F. 21-4/67(S) dt. 27.4.67	Construction of Animal House for the Department of Bio-Chemistry.	15,000
6.	F. 22-6/54(H) dt. 31.8.55	Strengthening the Department of Economics.	9,269
7.	F. 11-19/69(S.I) dt. 23.9.72	Additions & Alterations in the Department of Botany.	5,000
8.	F. 21-26/71(S.I) dt. 24.3.72	Construction of Glass House and Extension of Pot Culture House.	64,183
9.	F. 11-8/70(S.II) dt. 25.7.70	Construction of Animal House for the Department of Zoology.	10,000

Sl. No.	Sanction letter No. & date	Name of the Scheme	Amount payable as Spill-over
1	2	3	4
10.	F. 60-17/60(CU-I) dt. 24.7.62	Construction of a Women's Hostel at 53/2/4A Hazra Road, Calcutta.	Rs. 70,070
11.	F. 14-13/69(SA-I) dt. 12.6.69	Improvement of existing hostel facilities.	1,000
12.	F. 42-55/61(G.III) dt. 20.3.53	Construction of Post-graduate Students Hostel.	25,331
13.	F. 22-62/54(H) dt. 4.7.60	Construction of library building.	3,68,866
14.	F. 22-62/54(H) dt. 29.9.66	Purchase of library furniture.	11,773
15.	F. 13-1/67(CDN) dt. 27.4.67	Construction of a Guest House.	60,000*
16.	F. 4-6/61(H) dt. 6.6.62	Improvement of the existing press.	48,333
17.	F. 22-33/61(S/T) dt. 5.2.72	Construction of two additional floors in the Institute of Basic Medical Sciences.	7,50,000
18.	F. 2-30/67(H-I) dt. 7.6.73	Phonetic laboratory for the Department of Philosophy.	23,000
19.	F. 2-30/67(H-I) dt. 12.10.73	Purchase of Moscal 1400 Desk Calculator for Commerce Department.	1,473.50
20.	F. 2-30/67(H-I) dt. 5.2.74	Purchase of equipment for Economics Department.	1,944
21.	F. 11-6/67(Sc.I) dt. 26.7.68	Research Scheme in the field of Human Cancer.	{40,000 (NR) 90,000 (R)}

\* The total University Grants Commission share is Rs. 2,50,000/- (The remaining Rs. 1,50,000/- is included under Centenary Scheme.  
The total grant paid so far Rs. 1,50,000/- (Rs. 40,000/- under this head & Rs. 1,00,000 under Centenary grant).

Sl. No. 1	Sanction letter No. & date 2	Name of the Scheme 3	Amount payable as Spill-over 4
22.	F.11-21/68(Sc.II) dt. 3.10.68	Purchase of furniture for the department of Pure Mathematics.	Rs. 500
23.	F.11-2/70(Sc.II) dt. 6.5.68	Purchase of equipment for the department of Education.	5,000
24.	F.7-15/70(H-I) dt. 18.2.74	Purchase of photo copier for the Central library.	18,563.95
25.	F.9-1/14/67(CD) dt. 30.1.71	Salary of staff for various Humanities Departments	19,141.92
26.	F.9-1/14/67(CD) dt. 30.1.71	Salary of staff for various Science Deptts.	4,57,811.44
27.	F.9-1/14/67(CD) dt. 30.1.71	Salary of staff for Central Library.	5,495.67
28.	F.20-22/69(CDN) dt. 21.2.70	Salary of the Development Officer.	2,652.43
29.	F.11-18/69(S.II) dt. 5.11.69	Field work in the Deptt. of Anthropology.	15,000.00
30.	F.11-18/69(S.II) dt. 26.3.70	Field work in the Deptt. of Geography.	5,000.00
31.	F.27-8/70(Sc.I) dt. 15.7.71	Life Science Centre.	9,922.83
32.	F.4-23/68(H.II) dt. 20.3.70	Community Development & Panchiyati Raj.	2,700.00
33.	F.4-23/68(H.II) dt. 20.3.70	Construction of a Students Hall.	14,435.00
Total			22,08,964.74

( viii )

Sd/- I.K. SANGMA  
Deputy Secretary,  
University Grants Commission.



# ANNEXURE—III

*Schemes accepted by the Commission on the condition that the expenditure would be a charge on the Vth Plan allocation to be made to the Calcutta University.*

Sl. No.	Name of the Scheme	Sanction letter No. & Date	Amount
			Rs.
1.	Purchase of back Volumes of biological extracts.	F. 2-10/74(D-3a) dt. 5.4.75	36,000/-
2.	Purchase & installation of an electrone microscope (enhancement of the IVth Plan allocation).	F. 22-51/66(Sc.I/D-3a) dt. 24.3.75	75,000/-
3.	Operation of Electrone Microscope.	F. 22-51/66(Sc.I/D-3a)dt. 15.7.75	1,50,000/- (N.R.) 64,000/- (R.)
			<u>3,25,000/-</u>

( 4 )

Sd/- I.K. SANGMA  
Deputy Secretary,  
University Grants Commission.

## ANNEXURE—IV

*New Schemes of non-recurring nature accepted by the Commission on the basis of the report made by the 5th Plan Visiting Committee, Calcutta University*

(a) Grants approved for books & Journals and Equipment during the Fifth Plan period. All figures are in lakhs of rupees and represent UGC share. The amount includes the basic grants of Rs. 7 lakhs for books and Rs. 10.5 lakhs for equipment already approved by the Commission during the Fifth Plan period, vide Commission's letter Nos. F. 2-4/74(D-3a), dated 28.5.74 & F. 2-3/74(D-3a), dated 28.5.74, respectively.

Sl. No.	Department	Books & Journals	Equip-ment
		Rs.	Rs.
1.	English	0.30	0.20
2.	Urdu	0.10	—
3.	Bengali	0.30	—
4.	Hindi	0.30	—
5.	Arabic/Persian	0.10	—
6.	Sanskrit	0.30	—
7.	Pali	0.05	—
8.	Philology	0.30	0.30
9.	Foreign Languages	0.50	—
10.	Library Science	0.30	—
11.	Education	0.50	—
12.	Economics	0.50	—
13.	History	0.50	—
14.	Ancient Indian History	0.30	—
15.	Islamic History & Culture	0.30	—
16.	Archaeology	0.30	—
17.	Museology	0.25	—
18.	Philosophy	0.40	—
19.	Political Science	0.40	—
20.	Commerce	0.75	0.10
21.	Law	0.40	—
22.	Botany	1.00	2.00
23.	Zoology	1.00	3.50
24.	Physics	1.00	5.00
25.	Applied Mathematics	0.30	0.75
26.	Pure Mathematics	0.75	0.20
27.	Statistics	0.50	0.20
28.	Chemistry	1.00	4.50
29.	Physiology	1.00	3.00
30.	Biochemistry	1.00	3.00

Sl. No.	Department	Books & Journals	Equip- ment
		Rs.	Rs.
31.	Geology	1.00	1.75
32.	Pure Psychology	0.50	0.70
33.	Applied Psychology	0.50	0.70
34.	Anthropology	0.30	0.30
35.	Geography	0.60	1.00
36.	Sociology	0.50	0.20
37.	Food & Nutrition	0.50	0.75
38.	Central Instrumentation Labs.	—	7.00
39.	Central Animal House	—	0.75
40.	Central Workshop	—	2.50
41.	Central Library & Campus Libraries	18.00	0.20
		<hr/> 36.60	<hr/> 38.60

Sd/- I. K. Sangma,  
Deputy Secretary,  
University Grants Commission

(b) Grants approved for building/furniture and miscellaneous schemes during the Fifth Plan period. All figures are in lakhs of rupees and represent UGC share.

Sl. No.	Item	Amount approved
		Rs.
1.	Sociology Department (furniture)	0.10
2.	Extension of Science building	23.50
3.	Extension of Humanities/Social Sciences building	19.00
4.	Staff Quarters for teachers	8.00
5.	Improvement facilities in the existing hostels	3.00
6.	Furnishing the Guest House	1.00
7.	Shed for Central Workshop	1.00
Total		<hr/> 55.60

(c) Amount approved for miscellaneous schemes during the Fifth Plan period. All figures are in lakh of rupees and represent UGC share.

Sl. No.	Item	Purpose	Amount approved
			Rs.
1.	English Department	Seminars etc.	0.25
2.	Economics Department	Field work	0.10
3.	Archaeology Department	Excavation and Field trips	0.20
4.	Museology Department	1. Field work	0.30
		2. M.A.Scholarships	0.45
5.	Botany Department	Green House and Cold Room	2.00
6.	Applied Mathematics	Seminars, etc.	0.50
7.	Biochemistry	Seminars, etc.	0.50
8.	Geology Department	1. Jeep	0.30
			(on 50 : 50 basis)
		2. Field work & Contingencies	0.30
9.	Geography Department	Jeep	0.30 (on 50 : 50 basis)
10.	Faculty Improvement programme	—	2.00
11.	Visiting Faculty.	—	1.00
12.	Use of out-station res. facilities	—	0.50
13.	Seminars, Symposia & Workshops etc.	—	1.00
14.	Contingencies for Central Workshop	—	0.10
		Total	9.80

Sd/- I. K. Sangma  
Deputy Secretary,  
University Grants Commission

## ANNEXURE—V

*Additional posts to be created during the Fifth Plan period  
on the basis of the report made by the Fifth Plan  
Visiting Committee—Calcutta University*

Sl. No.	Department	Posts	Specialisation
1.	English	1R	Comparative Literature
2.	Urdu	1R	Open
3.	Bengali	1L	Open
4.	Hindi	1R	Open
5.	Sanskrit	1L	Open
6.	Foreign Languages	2L	German/Russian
7.	Education	1R	Open
8.	Economics	1R	Public Economics/ Industrial Economics
9.	History	1P	Economics & Social History
		1L	Open
10.	Museology	1R	Biological Sciences
11.	Philosophy	1L	Open
12.	Pol. Science	1R	Open
		1L	Open
13.	Commerce	1P	Accounting
		1R	Functional areas of business/Industrial Sociology/Industrial relations/personel. Management & Marketing
14.	Law	1R	Open
15.	Botany	1R	Molecular Radiation Biology/Ultrastructure
		1T.P.	Technical Assistant for Tissue culture/ Radiation Lab.
16.	Zoology	2R	1. Comparative Endocrinology. 2. Protozoology/ Parasitology.
		3T.P.	Two Technical Assistants and one animal keeper
17.	Physics	2R	Experimental Solid State/ Theoretical Solid State Biophysics.
18.	Applied Math.	1P	Theoretical Physics
		1R	Cybenetics/Ocenography/ Operational research.
		1L	Open

Sl. No.	Department	Posts	Specialisation
19.	Pure Math.	1R	Only if an integrated course in Mathematics is started.
20.	Statistics	1L	Open
21.	Chemistry	1R	Solid State Chemistry/ Photo Chemistry Organo Metallic Chemistry.
		2T.P.	Technical Assistants—one for Organic and one for inorganic Chemistry.
22.	Physiology	1T.P.	Technical Assistant.
23.	Biochemistry	1P	Nutrition.
24.	Geology	1P	Igneous & metamorphic petrology/Micropalean- tology.
25.	Pure Psychology	1T.P.	Animal Keeper.
26.	Applied Psychology	2T.P.	1. Photographer-cum-Artist. 2. Mechanic.
27.	Anthropology	1R	Applied Anthropology/ Physical Anthropology.
28.	Geography	1P	Social Geography.
29.	Sociology	1R	Social Anthropology/ Sociometry.
		1L	Open
30.	Food & Nutrition	1R	Foods
31.	Central Instrumen- tation Lab.	4T.P.	1. Instrumentation Engineer. 2. Three Technical Assistants.
32.	Animal House	1T.P.	Animal Keeper
33.	Central Workshop	2T.P.	1. Supervisor 2. Mechanic.

---

6P, 20R, 10L & 17T.P.

---

P : Professor

R : Reader

L : Lecturer

T.P. : Technical posts.

50 Junior Research Fellowships of the value of  
Rs. 400/- p.m. at any given time to be operated  
as per UGC rules.

Sd/- I. K. Sangma,  
Deputy Secretary,  
University Grants Commission.

*Annexure V regarding Higher Education and Research—  
Development Schemes of the Universities and University  
Centres for postgraduate Studies for the Fifth Plan  
Period (1974-79)*

**General Recommendations of the U.G.C. :**

On the basis of the consideration of the suggestions contained in the different reports of the Visiting Committees, the Commission felt that the following general aspects may be kept in view in the implementation of the programmes during the Fifth Plan period in the Universities :—

1. It is essential to set up in each State an Inter-University Coordination body so as to make the best use of facilities and experts available for co-ordinated development of the academic programmes in the State. This Inter-University Coordination body may consist of the Vice-Chancellors of the different Universities and representatives of the State Government. A representative of the U.G.C. may be associated with it.

2. Each University may set up a Planning Board which would engage itself in a continuous review of the implementation of the various academic programmes in the University and also suggest measures to be taken make these programmes relevant to the local needs. It may also suggest or constitute a separate committee to suggest measures to be taken for coordinating the development of higher education in the affiliated colleges of the Universities.

3. The Universities would be required to give due consideration to the various suggestions made in the reports of the Visiting Committees and by the Commission in respect of development programmes accepted to be implemented during the Fifth Plan period. No change should be made either with regard to the items of expenditure accepted or as regards the specialisations suggested for different posts approved by the Commission. Wherever such changes are considered necessary, the University may approach the Commission with full justification.

4. Non-recurring and recurring items should both be taken up for implementation simultaneously.

5. The Commission would provide its share of actual expenditure in respect of recurring items, particularly academic and other position approved from the date of appointment of such staff and up to the end of the Fifth Plan period. Accordingly, there will be no savings which would accrue because of delays

in appointments etc., which could be utilised for other purposes.

6. In view of the limited resources available to the UGC, the Universities be advised to explore the possibility of obtaining funds from Life Insurance Corporation of India, HUDCO, State Housing Corporations, etc., for construction of residential accommodation.

7. The Universities should not be encouraged to start M. Phil. courses unless the University Department concerned already has a well-organised postgraduate programme of teaching and research (Master's and Ph.D. degree course). M.Phil. courses should be started only in such subjects where it is considered essential taking into account regional needs and existing facilities.

8. Where Universities desire to organise post-M.Sc. courses in specialised subjects, it would be appropriate to organise such courses as post-M.A./M.Sc. diploma courses. Where the Universities desire to organise vocational/job-oriented courses, such courses may be organised in consultation with the user agencies, industries, etc. and with the help of part-time staff.

9. Adequate provision may be made in the plans of all the Universities as may be agreed to by the Commission for institution of certain number of Junior fellowships and a specified amount to appoint Visiting Professors from within the country.

10. Where the Visiting Committees have recommended grant for publication within the plan allocation, the Universities may utilise this amount in addition to the publication grant generally made available to all the Universities by the Commission.

11. Each University would be required to send to the U.G.C. annually a detailed report indicating the progress made in the implementation of the Fifth Plan programme and with reference to the suggestions contained in the report. This report should be made available to the Commission not later than 30th June, each year.

12. The Universities will make all appointments through open advertisement for posts sanctioned by the Commission in accordance with the provision made in the respective Acts and Statutes.

13. If persons already in the service of the University are appointed against the posts approved during the Fifth Plan period, the Universities will be required to fill in the resultant vacancies within a period of six months.



UNIVERSITY GRANTS COMMISSION

*Conditions of the grants sanctioned by the University Grants Commission.*

**1. General**

1. The grants along with the University's matching share, if any, should be utilised for the purpose for which these are sanctioned.

2. The University and/or the State Government will contribute their share on the approved basis as indicated in the sanction letter.

3. The amounts paid should be spent as far as possible during the financial year in which payment has been made. The Instalments of non-recurring grant released are generally to be utilised within a period of six months from the date of sanction, and non-utilised amount will be refunded to the Commission.

4. The grants sanctioned will ordinarily be paid in such instalments as may be needed for meeting expenditure likely to be incurred during a period of three to six months. A progress report should be sent while asking for release of funds (specimen attached).

5. A report on the progress of expenditure and the implementation of the scheme should be sent to the Commission in the prescribed form (copy attached) at the end of each half year i.e., ending September and March (Form attached).

6. A statement of accounts duly audited and a certificate from the statutory auditors of the University to the effect that the grant has been fully utilised for the purpose for which it was sanctioned, and that the University and/or the State Government has contributed from its own funds where required, its share of expenditure, should be supplied to the Commission as soon as possible at the end of each financial year.

7. If the University is unable to implement the approved scheme sanctioned within a year of its sanction either with regard to construction of building or *appointment of staff, the sanction should be considered as lapsed, fresh consideration of the proposal would be necessary if it is to be taken up again.*

8. The assets acquired wholly or substantially out of the University Grants Commission grant shall not be disposed of, encumbered or utilised without prior sanction of the UGC for purposes other than those for which grant was given and should at any time the grantee cease to function, such assets shall revert

to the University Grants Commission. The University should also maintain a register of such assets as required in Commission's letters No. F. 33-82/61 (CUP), dated 26th July, 1963, 12th April, 1964 and 23rd April, 1966.

• 9. The building for which assistance is given by the U.G.C., shall not be named after any person without the approval of the Commission.

10. Any change in the building plans accepted by the Commission may only be made with the concurrence of the Commission.

## II. Recurring

1. The University will make provision on a *permanent basis* for the posts sanctioned by the U.G.C. as part of the Fourth Plan development programme unless otherwise specified.

• 2. The grant for meeting the expenditure towards appointment of the staff approved by the U.G.C. will be released in two instalments in a year. The first instalment will be released in May on receipt of the information required in a statement attached. The second instalment will be released in October, on receipt of a statement of expenditure actually incurred during the first half of the year and the estimated expenditure during the second half of the year. This information may please be supplied as per statement referred to above.

3. The following information may be supplied as soon as the appointment to a particular post approved by the U.G.C. is made by the University.

(a) Name of the person appointed ;

(b) Academic qualifications and expenditure of the appointee ;

(c) Initial salary offered in the scale of the post (scale to be indicated) and allowances admissible. In cases where the University proposes to give to the staff approved by the Commission on the advice of the selection committee more than five increments at the time of initial appointment, concurrence of the U.G.C. should be obtained.

4. In case where existing staff members are appointed against new posts sanctioned by the U.G.C., the University should take steps to fill in the resultant vacancies as early as possible.

## Equipment

1. The allocation sanctioned for purchase of scientific equipment under the general development should be utilized for pur-

chase of equipment required for undergraduate and post-graduate teaching laboratories and as a general principle 2/3 of the grant allocated for equipment be utilised for this purpose. The allocation available for general development should not generally be used for purchase of highly sophisticated equipment which may be purchased from funds sanctioned for research projects.

2. The equipment should not normally be utilised for providing consumable articles, for example Glassware or routine chemicals. But in special cases up to 5% grant may be utilised for provision of consumable articles, such as research chemicals.

3. An amount not exceeding 5% of the equipment grant may be utilised for providing storage facilities.

4. Since all efforts have to be made to ensure that all equipment available are put to effective use, an amount not exceeding 5% of equipment grants may also be utilised on maintenance/repairs/ purchase of spares/service contracts and other maintenance needs wherever necessary subject to the condition that such expenditure will be incurred only where necessary and in addition to the normal provision already made for such purpose by the Universities from the normal budget.

5. Universities may also utilise up to 20% of the grant for purchase of materials, components and other items if required for fabrication and development of equipment in the departments with the help of workshop facilities in the University or locally. Such expenditure will also be admitted as expenditure incurred from provisions made for purchase of scientific equipment grants to each department. Items of such equipment indigenously made up may be reported to the Commission.

6. The Commission will have the right to transfer to another University an apparatus of the value of Rs. 20,000/- or more purchased from funds made available under this grant, if the same is no longer required. A separate list of such items of equipment, the cost of which is/or exceeds Rs. 20,000/- may be sent to the Commission for its record.

#### IV. Books and Journals

1. The grant for library books should be utilised for purchase of books including text books, reference books and journals.

2. It will be premissible to utilise a part of the library grant not exceeding 10% for purchase of library furniture, appointment of additional staff and maintenance and preservation of books and journals.

## V. Building

1. The University should send the plans (in duplicate) and preliminary estimates worked out on the plinth area rate basis along with the specifications to be adopted and if there is any appreciable variation between areas approved by the Commission and the areas indicated in the plans, the University should clearly point this out.

2. On receipt of the information as in para I above, the U.G.C. will communicate, *within a month*, the acceptance or otherwise of the plans along with a copy duly authenticated.

3. On receipt of the acceptance of the plans the University may proceed with the preparation of detailed estimates which should be done on the basis of the specifications and Schedule of Rates of the P.W.D. concerned. The estimates should indicate the relevant item number in the P.W.D. Schedule on the basis of which the estimates have been prepared. The Architect/Engineer who prepares the estimates should certify that they are in accordance with the Schedule of Rates of the P.W.D. concerned.

• 4. As soon as the detailed estimates have been prepared by the University a copy should be sent to the local P.W.D. (unless an appropriate alternative arrangement has been agreed to by the U.G.C. at the time of acceptance of the plans para 2) for certification of rates and tender/abatements/premium and simultaneously a copy may be sent to the U.G.C. The University may then proceed to invite tender.

5. It is expected that by the time the tenders are received and analysed, the necessary certificate from the P.W.D. referred to in (4) above, would be available and then the University may finalise the acceptance of the tender ; and in consultation with the U.G.C. if the tender to be accepted is higher than the the estimates approved by the P.W.D.

If there is any unavoidable delay on the part of the P.W.D. in the issue of the certificate, the University may finalise the acceptance of the tender and undertake construction of the building under intimation to the U.G.C. without waiting for the P.W.D. Certificate on the stipulation that (a) the U.G.C. grants will be based on the estimates ultimately certified by the State P.W.D. and that (b) for any excess of expenditure over that certified by the P.W.D. the University will be solely responsible. Release of funds in appropriate instalments will be made up to 75% of the estimated cost and final adjustments will be made only after the P.W.D. certificate signed by an Officer of the State P.W.D. to be designated for the purpose by the Chief Engineering of the State Government furnished to the Commission.

6. For all projects tenders will be invited on item rate basis and the following information shall be supplied to the Commission for each work.

- (a) Value of the estimates put to tender.
- (b) Number of tenders received.
- (c) Value of the lowest tender.
- (d) Value of the tender accepted.
- (e) If the lowest tender is not accepted, the reason (s) for the same.

7. On receiving intimation from the University at the University is in a position to undertake the construction the first instalment of grant will be released. Subsequently, instalments will be released on receipt of the progress of expenditure duly certified by the Architect/Engineer.

8. The final instalment of the grant will be released on receipt of an exact statement of final cost and completion certificate in the following form signed by the University Engineer/Architect and the Registrar of the University.

"Certified that the work (here mention the name of the building and the locality) has been satisfactorily completed, and it is fully in accordance with the plans numbers as accepted by the U.G.C. and found complete without any change. The site has also been found properly cleared."

9. Audited accounts of the work completed will be sent as soon as possible after the completion of this work. Any amount paid in excess shall be refunded to the Commission.

10. A charge not exceeding 4% of the estimates may be allowed where the Architect besides supplying the drawings and estimates also supervises the work. In case the Architect supplies only the drawings and estimates and supervision is done by the University Engineering Staff, a fee of  $2\frac{3}{5}\%$  would be reasonable. In case where the services of Architect are not engaged and the drawings and estimates are prepared by the University Engineering Staff, the Commission contribution would be provided only for the Supervision i.e., an amount not exceeding  $1\frac{2}{5}\%$  of the cost.

Further the expenditure on the salary of clerk of works, if appointed, may not exceed 1% of the cost of civil work which will be in addition to 4% allowed for Architect's fee and supervision charges. The expenditure on work charged establishment if any, not exceeding 1% may be met out of the provision for contingencies, which should not exceed 3%.

---

Appendix to Item No. 7.

UNIVERSITY GRANTS COMMISSION

*Report of the Visiting Committee appointed by the University Grants Commission to assess the development requirements of the Calcutta University for the Fifth Five-Year Plan.*

The University Grants Commission appointed a Committee consisting of the following to assess the development requirements of the Calcutta University for the Fifth Five-Year Plan Period.

1. Professor S. Gopal, Chairman  
National Book Trust of India &  
Member, UGC. • Convener •
2. Professor B.M. Udgaonkar  
Tata Institute of Fundamental Research,  
Bombay & Member, UGC. Member
3. Professor H.C. Gaur,  
Department of Chemistry,  
Delhi University, Delhi. ”
4. Dr. R.S. Mishra,  
Department of Mathematics,  
Banaras Hindu University,  
Varanasi. ”
5. Dr. R.K. Dasgupta,  
Department of Modern Indian Languages,  
Delhi University, Delhi. ”
6. Dr. A.D. Pand,   
Department of Political Science,  
Allahabad University, Allahabad. ”
7. Dr. R.S. Nigam,  
Department of Commerce.  
Delhi University, Delhi. ”

- |     |   |        |
|-----|---|--------|
| 8.  | Dr. (Miss.) R.R. Verma,<br>Department of Philosophy,<br>Lucknow University, Lucknow.                      | Member |
| 9.  | Dr. V.I.S. Bhimasankaram,<br>Department of Geology,<br>Osmania University, Hyderabad.                     | "      |
| 10. | Dr. P. Dayal,<br>Vice-Chancellor,<br>Magadh University, Bodh Gaya.  | "      |
| 11. | Professor R.P. Roy,<br>Department of Botany,<br>Patna University, Patna.                                  | "      |
| 12. | Dr. A.S. Kapoor,<br>Department of Zoology,<br>Rajasthan University, Jaipur.                               | "      |
| 13. | Dr. C.V. Ramakrishna,<br>Department of Biochemistry,<br>M.S. University of Baroda, Baroda.                | "      |
| 14. | Dr. L.P. Vidyarthi,<br>Department of Anthropology,<br>Ranchi University, Ranchi.                          | "      |
| 15. | Dr. R. Rath,<br>Department of Psychology,<br>Utkal University,<br>Vani Vihar, Bhubaneswar.                | "      |
| 16. | Dr. S.K. Manchanda,<br>Department of Physiology,<br>All India Institute of Medical Sciences,<br>New Delhi | "      |
| 17. | Dr. Ashwini Kumar,<br>Department of Pharmacology,<br>Patel Chest Institute,<br>Delhi University, Delhi.   | "      |

18. Dr. T.N. Hajela,  
Deputy Secretary,  
University Grants Commission,  
New Delhi.

Secretary

2. The Committee visited the University from 18th to 20th September, 1975. It had preliminary discussions with the Vice-Chancellor, Dean of Faculties and Officers of the University on 18th September, 1975. The next day the members of the Committee visited the University Library, departmental buildings, students and teachers hostels, the health centre, the study centre, the library, the University printing press and met students, and teachers, representatives. The Committee broke up into two groups for the Humanities and Social Sciences and for the Sciences respectively. These groups visited the university departments and discussed the Fifth Plan proposals of the individual departments with the person concerned.

### 3. *Basic Facts and Figures :*

#### 3.1. Establishment of the University.

The Calcutta University was established in 1857 as an examining University. It was in 1914 that the university had set up postgraduate teaching departments in the Humanities, the Social Sciences and the Sciences. It is now a teaching and affiliating university with its jurisdiction extending over the States of West Bengal (excluding the territorial areas of Burdwan, Jadavpur, Kalyani, North Bengal and Visva-Bharati University) and Tripura.

3.2. In 1973-74, the university had the following faculties : Arts, Science, Agriculture, Commerce, Education, Engineering, Fine Arts and Music, Journalism, Law, Medicine, Technology and Veterinary Science. There are seven university colleges, namely, College of Arts, College of Commerce, College of Law, College of Agriculture, College of Technology, College of Science and College of Medicine. Sixty-one departments are functioning in the above colleges.

3.3. During 1973-74, there were 213 colleges, viz., Arts and Science—158, Commerce—16, Medical—10, Ayurved—1, Teachers Training—12, Law—4, Textile—2, Veterinary—1, Training—1, Home & Social Science—1, Business Organisation—1, Ceramic—1, Horticulture—1, Engineering—2, Music—1, Physical Education—1. The number of institutions recognised for postgraduate degree/diploma course were 9.



3.4. The University provides residential accommodation mostly to postgraduate students. There are no staff quarters. The university has one rowing club and only one playground.

3.5. The new library building of the university has an area of 39,600 sq. ft. for stack room and 13,400 sq. ft. for reading rooms. The University proposes to improve its library services by providing free and open access to the shelves of the library except to the rare collection and other reserved areas. It is also planned to provide documentation service on a modest scale.

3.6. It goes without saying that Calcutta University has a long tradition of quality research in most departments. The members of the university faculties have published research papers in both Indian and foreign journals. They also participated in a number of international conferences during the Fourth Plan period and some of them presided over all India Conferences and Seminars. A number of research projects assigned to the university by the University Grants Commission, the Research Programme Committee of the Planning Commission, CSIR etc. have been completed.

3.7. *Examination results* : A study of the examination results of the University during the last five years shows that the pass percentage has been better than the all-India average at the B.Sc., examination but not as good in B.A. and B.Com. examinations. In the M.A., M.Sc., and M.Com. examinations, the pass percentage is below the all-India average. The examination results of the University during the years 1968-1972 are given at Annexure—1.

3.8. *Income & Expenditure* : The university has been running in deficit. The deficit under general fund (non-plan) has gone up from Rs. 36.14 lakhs at the end of 1970-71 to Rs. 93.60 lakhs at the end of 1973-74. The statement of consolidated position of all funds during 1975-76 (*Annexure II*) indicates an income of Rs. 453 lakhs and expenditure of Rs. 579 lakhs resulting in an estimated deficit of Rs. 126 lakhs.

3.9. *Admission qualifications* : According to the regulations of the university, the minimum qualification for admission to the Post-graduate courses is a Bachelor's degree (pass or honours) but in actual practice due to limited availability of seats admissions are made according to merit.

3.10. *Progress of Fourth Plan Scheme* : During the Fourth Plan the UGC assigned the university towards the appointment of academic and technical staff, purchase of books and journals and laboratory equipment and construction of academic and residential buildings. The university during the last Plan period

concentrated on strengthening its existing Post-graduate departments by extending laboratory, library, research and teaching facilities and by appointing additional staff. The Central Library was strengthened, additional amenities to students and teachers were provided and most of the construction projects which were undertaken during the Third Plan and the new projects sanctioned during the Fourth Plan were completed.

During the Fourth Plan, the Commission sanctioned 12 posts of professors, 14 posts of Readers and 29 posts of Lecturers. The University could not fill 3 posts of Professors and 3 posts of Lecturers. In all fifty posts of teachers (16 of Professors, 11 of Readers and 23 of Lecturers) were lying vacant on 15.9.75 in 41 departments. The total number of approved posts for these departments was 395 (55 professors, 103 readers and 237 lecturers) and of these only 345 were occupied in September, 1975. Department-wise details in this regard are given in *Annexure III*.

For the proposals accepted by the Commission, the total provision was about 169.17 lakhs of which the Commission's share was Rs. 131.41 lakhs and the grants released up to the end of Fourth Plan period amounted to Rs. 102.43 lakhs. The actual spill-over to be carried to the Fifth Plan is Rs. 22.09 lakhs which would be the first charge on the Fifth Plan allocations of Rs. 3.00 crores. A statement giving the details of the scheme approved, grants released up to 31.3.1974 and the spill-over to be carried to the Fifth Plan is attached at *Annexure IV*.

3.11. *Fifth Plan proposals* : The University has submitted proposals involving an outlay of Rs. 391.34 lakhs. Of this Rs. 308.86 lakhs is in the first priority and Rs. 82.48 lakhs in the second priority. These proposals also include the expenditure on the Institute of Basic Medical Sciences and on the Sports complex. These proposals generally relate to the strengthening of Science and Humanities Departments and Institute of Basic Medical Sciences. The university has also proposed to start Professor S.N. Bose Institute of Physical Sciences. There is also a proposal for the construction of teachers quarters at C.I.T. Plot at Maniktola at an estimated cost of Rs. 30.00 lakhs.

#### 4. *Meeting with the Vice-Chancellor and Deans* :

4.1. The Vice-Chancellor and Deans of Faculties, Calcutta University, in the course of their discussions with the Visiting Committee *inter-alia* emphasised the following points.

4.2. The Committee for the reorganisation and development of the University of Calcutta, appointed by the University Grants

Commission under the Chairmanship of Professor M.M. Ghani, former Vice-Chancellor, Calicut University had recommended development proposals of the University involving an outlay of Rs. 10 crores. The University was under the impression that it would be provided assistance by the Commission to that extent during the Fifth Plan period. However, subsequently, the U.G.C. desired that the proposals may be brought down to a level of Rs. 3.00 crores. Consequently, the University had to prune its proposals to bring them within the allocation of Rs. 3.00 crores tentatively suggested by the Commission. Obviously a number of requirements of the departments had to be abandoned and now whatever remained was the barest minimum.

4.3. In accordance with the guidelines indicated by the Commission, the University had allocated 25% of the total provision for buildings. The teaching departments were cramped up for space. With a view to reducing this congestion, it was necessary to have more space. The History departments should be provided accommodation in such a way that all the three history departments are contiguous to each other. The departments of Physiology and Psychology also needed adequate space. The department of Archaeology required more accommodation. The proposal of the University, therefore, was to put up an eight storeyed building in the compound of the Education Department and shift Psychology, Physiology, Agriculture and other departments to this building.

4.4. The university has included in its proposals amount for the development of almost all the existing departments. During the course of years, the intake of these departments has increased considerably, and the number of teachers has gone up. In almost all the departments, the courses have been modernised, new subjects have been introduced and more groups of special papers are proposed to be added. Consequently, additional teachers, library books and journals, buildings and furniture and equipment are required.

4.5 The University proposes to establish the department of Meteorology and develop Life Science Centre. The necessary infrastructure in the form of expertise, and physical facilities is already available in the university for the establishment of the department of Meteorology. Regarding the Life Science Centre, the Vice-Chancellor stated that the subject has been introduced in the new pattern of higher secondary education, at both the High School and Intermediate levels. A centre for the teaching and research in Life Sciences to train teachers in this branch of discipline was therefore desirable.

4. 6. The university had decided in 1958 to set up a department of Sociology and had also created a chair for the purpose. But owing to a number of factors beyond the control of the University, the department could not be set up. Now the university wants to pursue the matter seriously and set up a department in Sociology.

4. 7. The strength of the university has been increasing year by year and it has not been possible to provide adequate amenities to the students. Whatever amenities have been provided to the students within the limited resources available with the university are very meagre. The university wants to build an indoor stadium by the side of the Rowing Club.

5.1. *Meeting with Teachers* : The Committee met a representative group of teachers whose main points were : (i) the teachers be provided with residential accommodation ; (ii) the personal promotion scheme be revived ; (iii) with the present teacher-pupil ratio being high, the tutorials cannot be arranged and, therefore, additional staff be provided to each department ; (iv) additional grant may be given to each department for promoting research and (v) the Institute of Basic Medical Sciences should be attached to some hospitals.

#### *Meeting with Students*

5. 2. The committee met a representative group of students who pointed out that there was a great shortage of latest books and journals. The students of Economics said that courses were not practice-oriented. They lack actual project work in industry and other organisation. The students complained of the shortage of staff and backlog in examinations. They desired that the system of examinations should be decentralised and each department should be given the freedom to conduct its own examinations. The students of Psychology stated that the research scope in their department was very limited. Due to bifurcation of the Psychology department into Pure and Applied, the standard of teaching had also suffered. The students of Physiology department wanted a central library on the Campus, a common room as well as hostel accommodation. They too desired that departments of Basic Medical Sciences should be attached to a hospital. The students of Museology complained that there was no full-time Lecturer in their department and they did not have any gas or water supply. The Library was also ill-equipped and no junior research fellowship was available to the department from any source. The students of the Business Studies (Commerce Department) pointed out that the teacher pupil ratio in their department was the lowest.

The syllabus was outmoded and the library services are inefficient and inadequate. The hostels are very dirty and akin to barracks. The students desired that separate buildings may be provided for each department.

• The students of Law stated that in their department all the lecturers were part-time. Their courses were not practice oriented and even after obtaining the Law degree they do not have any idea of court work, drafting the plaints, etc. The teachers after a whole day's labour at the courts hardly take any active interest in teaching. The students also are equally non-serious. Consequently legal education in the university is a misnomer. The students of Mathematics complained that original thinking was not encouraged in their subject. The History students wanted that more accommodation be made available for housing the seminar library which is at present located in a Professor's room. Moreover, multiple copies of text-books were not available. The Archaeology students wanted fellowships and provision for a laboratory and a library. The Political Science students pointed out that although their syllabus has been modernised, the latest books required for it were not available for lack of sufficient funds for purchase of foreign books. Students of Comparative Philology complained that their courses are history oriented, but very little of the history of linguistics is taught. The students of Physiology stated that they have no grounding in Anatomy, and there is no project work.

#### 6. General Observations :

6. 1. The Fourth Plan Visiting Committee had observed that the buildings of the university were not being maintained properly. This was discussed at a meeting with the heads of departments and the committee was given to understand that the upkeep of buildings had actually deteriorated during the past five years. This was confirmed by what the members of the committee saw during their visits to the university departments. The committee, would, therefore, suggest that the university authorities may take urgent measures to improve the maintenance to the buildings.

6. 2 (a) The science departments are located in two buildings which are quite distant from each other. Pure Chemistry, Pure Physics, Applied Mathematics, Physiology, Applied Psychology and Pure Psychology departments are located at 92, Acharya Profulla chandra Road, whereas Anthropology, Botany, Zoology, Geology, Statistics, Geography, Pure Mathematics and Biochemistry departments are located in another building at 35,

Ballyganj Circular Road, The Institute of Basic Medical Sciences has got its own building. The university could consider further development along these lines and build up a multi campus university.

6. 2. (b) Inadequate space is a major problem for most of the science departments. The existing space could however be used much more effectively by rationalizing the procedure for allocation of rooms to various departments even in the same building. This is specially in the building at A.P.C. Road. The space provided to each department in this building is not contiguous. Rooms on the top floor recently added to the building have been allocated to the departments located on other floors. Had floor been allocated to each department, movement of students and teachers from one floor to another could have been avoided. The university should consider reallocation of the rooms among the various departments on this basis.

6. 3. The university is faced with the problem of numbers owing to the unrestrained expansion of departments and colleges during the past one or two decades. Further expansion is likely to create serious complications and would not be advisable. A judicious use will have to be made of the resources available to the University during the current Plan period. In view of the limitations of space and funds, it would be appropriate if the university concentrates its resources and energies during the Fifth Plan Period on consolidation of existing departments and courses.

6. 4. The Committee is of the view that the university will have to exercise caution in the matter of admissions to post-graduate courses, specially in the Arts subjects. This will not only strengthen the standards of post-graduate teaching and research in the University but will also bring about a more equitable distribution of the post-graduate student population between the Calcutta and Jadavpur Universities.

6. 5. The university staff has a large number of part-time teachers drawn from the local colleges. While this gives the selected teachers an opportunity to participate in post-graduate teaching, the flow is in one direction. The university may also consider the possibility of deputing some of its teachers to the colleges in order to improve the standards for collegiate education.

6. 6. The Committee observed that in a number of departments especially in the Faculty of Humanities and Social Sciences, teachers retired from Government service in the colleges have been appointed as Lecturers in the post-graduate departments. The Committee feels that this is not a desirable practice and as far as possible this should be avoided.

6. 7. The Committee observed that in several cases the Head of the Department in almost all subjects did not have any idea of the number of candidates registered for Ph.D. in the subject concerned. The Committee was informed that the supervisor forwards the application of the candidate for registration to Ph.D. direct to the Registrar of the University who puts it up before the Ph.D. Committee. After the topic has been accepted, the candidate starts work. The Head of the Department concerned only comes to know about the admission at the time of the *viva-voce* examination. The record of all the candidates registered for doctoral research is maintained by the Ph.D. section, but such a record is not available in the department itself. Consequently, the head of the department is not in a position to indicate the exact number of candidates engaged in doctoral research in his department at a particular stage or time. Such a situation obviously requires to be set right.

6. 8. The Committee found that the various Social Science departments of the university, and for that matter of any university in the State of West Bengal, have not developed any effective links with the Centre for Social Sciences, Calcutta, and have not taken advantage of the facilities provided by this Centre. The Committee discussed this with the Director of the Centre for Social Sciences. There is need for a more effective machinery of collaboration between the Centre and the Social Sciences departments of the universities in the State.

6. 9. An effective and flexible semester system may be introduced. M.Sc. degree, for example, may be given after a student has completed a certain number of credit courses. An upper limit but not a lower one may be specified for the number of credits a student may take in any semester. Each student would be expected to cover the core curriculum formulated by the department and take a requisite number of additional courses including those in allied fields. For this purpose different subjects can be grouped together into broad categories such as physical sciences, biological sciences etc. As far as courses in biological sciences are concerned it is felt that all students should take the following compulsory courses :

- (a) Instrumentation technique
- (b) The design of experiments and statistics and analysis of data
- (c) Animal experimentation.

Once the semester system of teaching with Interdepartmental cooperation is established, it would enable the departments to give a 4-year evening course in M.Sc. to students and those employed in schools, colleges, industries and hospitals.

6. 10. The university should consider the implementation of such recommendations of the Ghani Committee as do not require heavy investment of resources e. g. establishment of an Academic and Planning Board and the introduction of correspondence courses or giving autonomy to colleges. The Committee did not notice much coordination in the plan proposals or otherwise and it was sorry to note that no steps had been taken by the university to formulate a programme or initiate measures for introducing correspondence courses at the first degree. The Committee hopes that the university will not allow itself to be oppressed by the psychology of poverty. •

6. 11. No audit report on the accounts of the Calcutta University has been placed before the University Syndicate during the past 12 years. This is to say the least very unusual. The university and State Government must consider urgently ways of providing audit of accounts within a reasonable period of time. Financial discipline is the first priority of any eminent academic institution like Calcutta University. The possibility of creating a senior position of Finance Officer who would be responsible for all financial matters and getting the accounts of the University audited in time, may be considered by the State Government.

6. 12. The Ghani Committee's suggestion for declaring Calcutta University as an institution of national importance by the Central Government was considered. The Vice-Chancellor in his meeting with the Committee also stressed the need for such a declaration since the University was facing acute financial hardships. The Committee, after taking all factors into account felt that the University has yet to develop an All India and a national character before the question of declaring it an institution of national importance is considered by the Central Government. The University should have an open door policy in the matter of recruitment of its teaching staff and admission to various courses and should attract talented teacher and students from all parts of the country.

6. 13. It would be seen, however, that all that the university authorities' intend by the request for recognition as an institution of national importance is that the special problems and difficulties of Calcutta University be recognised and more funds (even for maintenance purposes) be made available by the UGC. This certainly merits sympathetic consideration. Certain proposals of the Ghani Committee which involve decentralization could be speedily implemented but administrative and academic decentralization should go together.

The University should also consider the setting up of an academic centre for improvement of standards of undergraduate



education. If funds are available in the State for this, the centre could also assist substantially.

6.14 Postgraduate teaching is at present confined to university departments. With a view to reducing the pressure on the university departments the Visiting Committee favours the possibility of allowing in the first instance two or three selected colleges in Calcutta, which have facilities for postgraduate studies, to start teaching a few selected subjects at postgraduate level. In doing so, the norms for P.G. colleges recently formulated by the U.G.C. will have to be observed. The Committee visited Presidency College, Calcutta and felt that this college had sufficient facilities and faculty strength in certain departments and could therefore be considered for the purpose. The University faculty should be associated with the selection committees for all colleges authorised to undertake postgraduate teaching.

6.15 The Committee is of the view that there has been too much of fragmentation of departments in the same discipline *e.g.*, History has at present four departments. There was very little evidence of collaboration amongst the departments which belong to the same discipline of allied disciplines—*e.g.*, Pure and Applied Psychology departments. The University should give serious thought to this problem and devise ways and means to bring the departments closer together. The four departments of History should be brought together as "Department of Historical Studies". The departments of Sociology, Social Anthropology, Cultural Anthropology and Physical Anthropology could also be brought together.

6.16 The Committee noted that all appointments to the teaching posts are made by the University without holding any interview. The matter was discussed with the Vice-Chancellor who said that there were some practical difficulties in this matter. He informed the Committee that the University was thinking of interviewing candidates for the lectures of lecturers. The Committee felt that the appointments not only of lecturers but also of readers should be made after the interview by the Selection Committee. Only in case of posts of Professors, the procedure for interview need not be followed in all cases; but even here interviews would be healthy and helpful. The Committee noticed a considerable amount of inbreeding in many departments. This may be cautiously avoided and efforts made to get staff on an all India basis.

6.17 It also came to the notice of the Committee that in a few cases the syndicate of the University did not accept the unanimous recommendations made by the Selection Committees

and appointed persons who had not been recommended by the Selection Committees. The syndicate has also on several occasions, referred back the recommendation of a Selection Committee for reconsideration. The Committee could not however verify this.

6.18 The Committee was sorry to note that nearly 18% of the teaching posts were lying vacant. This has an adverse effect on teaching and research in the concerned departments. Most of the vacant posts are at Professor's level. 16 out of 55 posts of Professors; 11 out of 103 Readerships and 23 out of 237 posts of Lecturers are lying vacant. Several departments are functioning without a Professor. The University should take immediate steps to fill the vacant posts.

6.19 The Committee noted with concern that the faculty members in most of the departments (sometimes even Professors) were not associated with the formulation of the development plans of the department. There was in fact very little dialogue within the development among the faculty members in most of the departments. One way to rectify this would be to hold regular meeting of the faculty to advise the Head of the department in all matters pertaining to the department. Another suggestion worth consideration is rotation of headship among the Professors at least after two or three years.

6.20 There is undoubtedly a need for each department to have basic equipment for sole use by its students and teachers, but costly and sophisticated equipment should not be the sole monopoly of a particular department. Even if such equipment is located in a particular department, it should be available for by other departments and consider as a part of central instrument facility for the whole University. The Committee did not find much evidence of any concerted effort or collaboration among the various departments in this direction. It also found several items of costly equipment lying idle for want of maintenance and repair. The equipment grants may just be used for putting such equipment into use and an appropriate fraction of it set apart for maintenance of the equipment during the rest of the Plan period. It is also suggested that the costly equipment especially sophisticated imported instruments should be put to the optimum use. The University may prepare a list of such items of equipments available within the University (or other neighbouring laboratories) for the information of its faculty. These should be part of a central instrumentation faculty. Users committee(s) may be established to ensure smooth functioning of the central instruments facility and proper maintenance of the equipment. All new major instruments must be part of the C.I.F. The University may consider keeping all the new items of equipment

which costs more than a lakh of rupees, at a central place for use by all the departments and establish a central service for servicing the instruments and ensure that instruments do not lie idle for want of maintenance.

6.21 While a few departments have revised their syllabi and have incorporated in them the latest trends in the subject, many departments have not given any serious thought to it. There is a need for a continuous review of the syllabi in each subject. The Committee was surprised to find that even a Professor in one of the departments complained that the syllabus had not undergone much change for 25 years inspite of rapid developments in the subject.

6.22(a) Hostels maintained by the University are at present intended only for M.A./M.Sc. students. Research scholars find great hardship in finding accommodation in the city. The University should consider the setting up of a separate hostel for research scholars.

6.22(b) Even the hostel for postgraduate students does not have basic facilities and the students living in the hostel pointed out that the hostels are not properly maintained. The hostels lacked adequate toilet and maintenance facilities. Facilities in the present hostels should be improved.

6.22(c) The Committee got the information that the University incurred a substantial loss every year (of the order of Rs. 4 lakhs) because it was difficult to recover lodging/boarder dues from hostellers. If true, this is a serious matter that needs to be looked into.

6.23 The University teachers also face hardship in the matter of accommodation. In a metropolitan city like Calcutta, accommodation is a serious problem specially for those who come from outside the city. The lack of quarters or teacher hostels is probably one major reason why the university does not attract talent from outside Calcutta. There is a need for teachers hostel and teachers quarters for all categories of teachers.

6.24 During the Committee's visit to various departments, it was found that each department maintains its own library which in most cases was not functioning effectively due to lack of sufficient staff and space. The Committee feels that in addition to the departmental libraries which may have basic books and multiple copies of text-books, it would be desirable to establish a central library in each campus where reference books, text-books general books and research journals which are of interest to more than one department are kept. This would avoid the purchase of multiple copies of the same journals in

different departments. The campus libraries and the central library should also be kept open for longer hours than at present. It would be desirable to include a student's representative in the library committee for each campus.

6.25 Some of the departments laid much stress on providing scholarships and fellowships exclusively to their departments to enable them to enrol students for research while other departments were quite satisfied with the number of fellowships obtained by the students. The Committee feels that it is not necessary to allocate fellowships separately for each department.

6.26 The Institute of Basic Medical Sciences, Calcutta University, has in its neighbourhood a well-run and well-staffed hospital viz. 'Institute of Medical Education and Research' which has its own departments of Basic Medical Sciences and is administered by the Health Department of the State Government. However, unfortunately there is no working arrangement between these two Institutes and the members of the staff of the Institute of Basic Medical Sciences have no access to any hospital facilities without which the departments in the Institute cannot work efficiently. The Committee recommends that immediate steps be taken to merge the two Institutes and this matter should be taken up at the highest level on top priority basis. If this is not possible, the University may consider the possibility of handing over the Institute of Basic Medical Sciences to the State Government. The only alternative to this recommendation would be the establishment of a separate hospital for the Institute of Basic Medical Sciences of the same standard as the Institute of Medical Education and Research and since this is a very expensive proposition, the Committee does not recommend it.

6.27 The posts now being recommended by the Visiting Committee for the Fifth Plan period for various departments and which have been earmarked for specialisations should not be transferred to any other specialization or areas or converted into general posts.

6.28 The Committee noticed a communication gap between students and teachers; appropriate steps including formation of student teacher committees in departments may be taken to bridge this gap.

6.29 There is a need for continuous appraisal of the progress made by the University with regard to the suggestions and recommendations made by the Visiting Committee and approved by the University Grants Commission. The University is advised to set up an Academic and Planning Board for this purpose.

pose which should have on it University teachers. The UGC should seriously consider establishment of a regional office in Calcutta to cater to the needs of this region.

#### 7. Existing Departments :

##### *Humanities and Social Sciences :*

An extract from the report of the visiting Committee relevant to the department of English.

7.1 *Department of English :* The department has about 400 students divided into four sections. The department has a sanctioned staff of the Professor, three Readers and eight lecturers. The post of Professor is lying vacant. The department is also being helped by six salaried part-time Lecturers and three honorary part-time Lecturers. Four of the whole-time Lecturers and one of the part-time Lecturers possess research qualifications. 30 candidates are engaged in doctoral research. 35 students have been awarded Ph.D. degree. The department intends to give priority to the reorganisation and development of postgraduate teaching and to the introduction of tutorials and seminars on a planned basis. It also proposes to have a language laboratory and to give the teaching of Drama, Poetry and Fiction, a practical slant through 'Literary Workshops'. The students of M.A. (Final) class would also be encouraged to write short and independent papers. The department also wants to undertake a programme for examining the impact of English on Indian languages and literature and translation of selected Bengali books into English.

The Committee found that the number of students admitted to the M A course is on the high side and it is necessary to curb the rising student enrolment. The possibility of restructuring admissions by restricting them to good honours students may be explored. The courses also need to be restructured and redesigned. It would be of advantage if in the revised course equal emphasis is given to language and literature. The department should also start arranging orientation courses for the English teachers of the affiliated colleges. The M.A. programme currently being offered by the department is largely a conventional one with focus on English literary study. The Committee suggests that the department may organise its M.A. programme in such a way that it takes into account the entry level of the present day student and also his needs as well as those of the community at large. The students at this level should have the option of specialising either in English literary studies or English language and language teaching. Both these groups should

have six papers in common of which at least four should be in English literature, the fifth paper could be in the use of English (spoken and written) and the sixth paper on the structure of modern English. Seventh and eighth papers should be either in : (i) Comparative Literature or, (ii) Commonwealth Literature including Indian writing in English or American Literature. For students specialising in English teaching and language teaching, these two papers may be : (a) introduction of linguistics and (b) principles and techniques of teaching English as second language in India.

The department could also do a number of things to bring about improvement in the teaching of English at the undergraduate level in the affiliated colleges, e.g., syllabus reform, production of right type of teaching material, changes in the methods of teaching and examination reforms. The department should conduct seminars and workshops for teachers of English at which these changes should be discussed. The University department of English should also function as a service department. Most of the books and journals are available only in English but knowledge of English of most of the students is very poor. The English department can help by organising courses for the better understanding of English. These courses could be framed to suit the different needs of various departments. If the department agrees to undertake these tasks, the Committee recommends that the following assistance be provided to it. The vacant post of Professor should be filled up immediately and the person to be appointed on the post should be a specialist in English language teaching with a strong background in English linguistics or specialisation in English linguistics with good qualifications in English language teaching or specialisation in linguistics related to ELT with good qualifications in ELT. In addition, the following are recommended under first Priority :

- |  |  |
|--|--|
| (1) Teaching Staff   | .. Reader (with specialisation in Comparative Literature). |
| (2) Books and Journals   | .. Rs. 30,000  |
| (3) Equipment (tape-recorder, record and typed material and film projectors)           | .. Rs. 20,000  |
| (4) Seminars/Workshops etc. required for revamping the undergraduate English Programme | .. Rs. 25,000  |

7. 2. *Department of Urdu* : The department of Urdu is at present a part of the department of Modern Indian Languages. It has a staff of two whole-time and two part-time Lecturers only. The intake of the department is 7 students in M.A. (Previous). There are 10 students in M.A. (Final). The department has been conducting an M.A. teaching programme in Urdu. The Committee noted that the department has not been able to inter act with other language departments, especially Bengali, English, Arabic and Persian.

Although there are three lakhs Urdu speaking persons living in Calcutta and three colleges are providing facilities for Urdu (Hons.) the M.A. (Urdu) course of the department of Modern Indian Languages has not been popular. This is mainly due to lack of permanent faculty support for this course. It has only two full-time Lecturers and two part-time Lecturers handling all the eight papers.

It is recommended that this department should be sanctioned the post of one Reader (under first priority) and two Lecturers (under second priority) and a grant of in the 5th Five-Year Plan, Rs. 10,000 for books and journals under first priority so that this course may be run adequately. In due course it should develop research programmes leading to Ph.D. degree. At present, only three students are enrolled for research in Urdu and so far none has got a Ph.D. degree.

7. 3. *Department of Bengali* : The department of Bengali was set up in 1919. This is a part of the Department of Modern Indian Languages. It has about 400 students divided into six sections, three in M.A. (Previous) and three in M.A. (Final). There are 13 whole-time teachers (three Professors), three Readers and seven Lecturers) in the department. Four part-time teachers and four honorary part-time teachers are also helping the department. During the last five years, 30 candidates have been awarded Ph.D. degree. At present, 20 students are engaged in doctoral research. The department has about 800 manuscripts of which only 150 have so far been published. It proposes to undertake a comprehensive programme of research relating to folk literature and other themes as well as preparation of Bengali encyclopaedia, descriptive catalogue of manuscripts etc. The department has not established any link with the departments of History, Sanskrit, Philosophy or English. It has not established contacts with its counterparts in other Universities of the State. The department has no concrete plan for its development in the next Five-Year Plan Period.

It would be advisable if the department, instead of publishing manuscripts, undertakes the preparation and publication of a

critical descriptive bibliography of the manuscripts preserved in its departmental library. A Bengali encyclopaedia is too ambitious a work which cannot be done by the Bengali department alone. About collecting folk songs, ballad and proverbs etc. the department is not equipped at present for undertaking this kind of work. Unless there are courses in phonetics and field techniques, any serious study in the field of folk literature be would impractical.

The Committee feels that although the department has been named as department of Modern Indian Languages, the courses at present conducted by the department do not justify this nomenclature. The department can be called a department of Modern Indian Languages until and unless it takes up the study of a number of Modern Indian Languages. The Committee, therefore, suggests that if the department has to justify its existence, it should conduct integrated courses involving study of two or three languages. It, therefore, seems necessary to redesign the Master's teaching programme to include a few more languages. The Committee, therefore, emphasises that the department of Modern Indian Languages be renamed as the School of Modern Languages including the departments of Urdu, Hindi, Bengali and one or two other languages like Tamil and Telugu. The Committee noted that a post of Professor is lying vacant in the department. It would be to the advantage of the department if this post is filled up immediately and the person appointed possesses specialisations in old Bengali and Linguistics. The Committee recommends that the following assistance be provided to the Bengali department under first priority :

(1) Teaching Staff :                      Lecturer :    1.

(2) Books and Journals :                Rs. 30,000/-

7. 4. *Department of Hindi* : The department was set up in the year 1918. It has an intake of 50 students in M.A. (Part-I) and has 50 students in M.A. (Part-II). The department consists of one Reader, three whole-time Lecturers and two part-time lecturers. 40 research scholars are working in the department. The department has a programme to introduce new optional groups and start honours classes, a wing for the study of Comparative Literature and a Centre for Advanced Study. It also has a proposal to undertake the preparation of a Literary History of India to compile a bilingual or trilingual dictionary and to edit Bengali manuscripts having a bearing on Hindi.



The Committee, however, feels that it would not be desirable for the department to start honours courses in Hindi. Such courses should be started and developed in the colleges. The programme of special studies proposed to be undertaken by the department may constitute the normal work and activities of the department and would not require any special assistance for the purpose. Various projects under this programme could be assigned to the research fellows. The Committee was of the view that for the present, there is no need for any additional Staff at lower levels. However, to strengthen research in the department, the Committee recommends that following assistance be provided under first priority :

- |                        |              |
|------------------------|--------------|
| (1) Teaching Staff :   | Reader 1     |
| (2) Books and Journals | Rs. 30,000/— |

7. 5. *Department of Arabic and Persian* : The department has been conducting sparate Master's degree courses both in Persian and in Arabic. It has six students [two in M.A. (Previous) and four in M.A. (Final) in Persian and 8 students [two in M.A. (Previous) and six in M.A. (Final)] in Arabic. The sanctioned strength of the department is one Professor, two Readers, four whole-time Lecturers and one part-time Lecturers. The Professorship and one Lecturership have been lying vacant. The department proposes to introduce papers on quaran and Tafsir and on Philosophy and Mysticism. It also seeks funds for purchase of Manuscripts and books and journals, for organising lecture's and symposia, for publishing an annual bilingual journal and research works.

The Committee found that the M.A. teaching programme in Arabic and Persian lays more emphasis on the study of Ancient Arabic and Persian texts and literature. It, therefore, recommends that the courses should be thoroughly revised. The study of modern Arabic and Modern Persian should form a strong component of these courses. It also appears to be desirable that the posts for Arabic and Persian be separately identified so as to encourage specialisation.

The Committee, therefore, feels that to provide leadership to the department, the post of Professor should be filled up immediately. After the Professor has been appointed, the future programmes of development of the department may be planned by him and sent to the Commission for consideration. A grant of Rs. 10,000 may, in the meantime, be provided for books, journals in Arabic and Persian under first priority.

7. 6. *Department of Sanskrit* :—The Department of Sanskrit is a big department having 300 students in both M.A. (Previous) and M.A. (Final). It has a sanctioned staff of one Professor, four Readers and six whole-time Lecturers. In addition, three teachers from other departments participate in postgraduate teaching, and there are 18 part-time Lecturers of whom as many as 11 are working in an honorary capacity. During the last 8 years, about 51 research students have been awarded the Ph.D. Degree and seven candidates the D.Litt. degree. The syllabus for postgraduate studies provides for as many as 14 specialisations, each covering four papers. At present facilities exist only for 10 optional groups. 21 candidates are engaged in doctoral research. One post of Reader is lying vacant.

The department has no links with the departments of Ancient Indian History, Pali and Philosophy. These should be developed. It would be also to the advantage of the department if active links are established between the Sanskrit College and the university department of Sanskrit. The Committee recommends that the following assistance be provided to the department during the current Plan period under first priority:

- |                          |             |
|--------------------------|-------------|
| (1) Teaching Staff :     | Lecturer—1  |
| (2) Books and Journals : | Rs 30,000/— |

7. 7. *Department of Pali* :— The department has 24 students—10 in M.A. (Previous) and 14 in M.A. (Final). It consists of one Professor, one Reader, three whole-time Lecturers and four part-time Lecturers of whom one is paid and the rest are working in an honorary capacity. The post of Reader is lying vacant. 20 candidates have been awarded the Ph.D degree during the last 10 years and 12 research students are actively engaged in doctoral research. The department is specially interested in Buddhist Studies. It has a collection of Tibetan and Chinese Manuscripts and has undertaken the translation of Dutch, French and German works on Buddhism in South East Asia into English. The department has not been able to achieve much owing to the fact that it has no links with the disciplines of Sanskrit, History or Philosophy. It would be desirable to bring its works and programmes into closer association with these allied disciplines. From the point of view of employment potentials, M.A. in Pali does not have a bright future and that is why the enrolment of the department has all along been very poor. The Committee does not feel that the department requires any extra teaching posts during the current Plan period. A grant of Rs. 5000 may be given for books, journals under first priority.

RORR

7.8. *Department of Comparative Philology* :—The department has an intake of 31 students. It has a sanctioned staff of one Professor, two Readers and five Lecturers. But, at the present moment, there are four Readers in the department, since two of the Lecturers have been promoted as Readers under personal promotion scheme. The post of Professor has been lying vacant for almost 10 years. It appears that the University has not been able to find a suitable person to head the department. During the course of the last five years, the department has produced 12 Ph.Ds. and five candidates are registered for their Ph.D. degree. The courses of study in this department are oriented towards historical linguistics and adequate attention does not seem to have been given to the study of Modern Linguistics. It has been proposed that a separate department of Modern Linguistics should be established and the department of Comparative Philology be developed into a Centre of Advanced Study in the field of historical linguistics, yet despite historical linguistics being a very strong component of the M.A. teaching programme, the department has failed to establish links with the departments of English, Sanskrit and Bengali. The Committee, however, does not support the idea of the establishment of a separate department of Modern Linguistics. It was also disturbing to note that the Khaira Professorship in Indian Linguistics and Phonetics which was instituted as early as 1922 has been vacant for the last 10 years. The department at one time was one of the best departments of Linguistics in the country, but this unfortunately is no longer the case. The Committee recommends that the post of Professor must be filled up immediately. For the present, an amount of Rs. 30,000 may be provided to the department for the purchase of library books and journals, and an equal amount for the purchase of equipment under first priority.

7.9. *Department of Languages* :—The languages department is conducting certificate/Diploma courses in French, German, Russian, Chinese and Tibetan. A course in spoken Hindi is also conducted by the department. This department is being run solely with the help of part-time teachers. The total intake of the department is about 150 students. Only those students are admitted to these courses whose mother tongue is Bengali. The University has a programme to start course in spoken Bengali and Tamil and a few other foreign languages, like Italian, Spanish and Japanese. The committee feels that the immediate reorganisation of Languages department is very necessary especially because there are a number of departments which are overlapping. Since departments of Arabic, Persian and Bengali are already in existence, the Committee feels that they are better placed to

introduce diploma courses. The course in spoken Hindi at present being conducted by the department may also be shifted to the the department of Hindi. The department of French may be merged with this department and a school of Foreign Languages may be set up. If the department agrees with this, the following facilities may be provided to it:—

- |  |   |
|--|---|
| (1) Teaching Staff 4 Lecturers<br>(Two in I and two in II<br>Priority) | One each in German,<br>Russian, Spanish &<br>Chinese. |
| (2) Books and Journals:—   | Rs.50,000/—under<br>First Priority.                   |

7.10. *Department of French*:—The department is conducting M.A. course with the help of one whole-time Lecturer and one part-time Lecturer. It has a small student enrolment. The Committee does not find any justification for an independent department of French. It also feels that the M.A. teaching programme in French has no practical value and certificate or diploma course in this language would be adequate. The department may, therefore, be amalgamated with the school of Foreign Languages.

7.11. *Department of Library Science*:—The department has been conducting B.Lib. and M.Lib Science course. It has 100 students in B.Lib. Science and 10 students in M.Lib. Science. The M.Lib. Science is a two-year course. This course was introduced in 1973 and the first batch will pass out this year. The present staff comprises three Lecturers, six part-time Lecturers (paid) and two part-time Lecturers, (honorary). The M.Lib. Science is two year course and its main emphasis is on documentation. The Commission had sanctioned two Lecturers during the Fourth Plan which implies that it has the approval of the Commission, although the Committee was of the view that in view of the financial constraints and very limited job-potential of M.Lib. Science graduates, the starting of such a course was not necessary, at this stage. The Committee feels that the department may restructure its programmes in such a way that the students are imparted practical training in documentation specially in the literature published in the field of Science, Technology and Medicine. Assistance in this regard may also be obtained from the INSDOC, Delhi and National Library, Calcutta. The department should also obtain help from the departments of History and Languages. It would also be appropriate if the department runs a conducted course only and admits those students who are sponsored by various institutions, namely, College, Universities and other research organisations. This would help the department

in meeting its recurring and non-recurring expenditure. Since the department has already been conducting a course with the help of part-time Lecturers, the Committee feels that if it organises its activities on the lines suggested above it would not require any financial aid. But the department may be provided with Rs.30,000/-for the purchase of books and journals under first priority.

7.12. *Department of Education*:—The department is offering courses leading to B.Ed./M.Sc. (Education). The student strength is about 100. The Staff consists of one Professor, three Readers, and seven wholetime Lecturers and one Instructor, nine part-time Lecturers and two honorary Lecturers. During the last five years, the department has produced seven Ph.Ds.. 30 candidates are at present registered for the Ph.D. course. The department is housed in a residential building. The accommodation in this building is inadequate and unsuitable for running a postgraduate department. The departmental library is housed in a single room, and is ill-equipped. The department has been carrying on research mainly on problems relating to teaching of Psychology and History of Education. The present proposal of the department is to introduce M.Ed. courses. The Committee feels that for the present, the department should hold in abeyance its proposals for introducing M.Ed. courses. It should also consider reducing the intake of students at the undergraduate as well as postgraduate levels. The M.A./M.Sc. Course is an academic course while the B.Ed. course is pedagogical. The existing teaching programme includes subjects which are usually taught at the M.Ed. level and has a large number of papers dealing with different aspects of Psychology and measurement. Surprisingly, the department has no co-ordination with the department of psychology. The Committee feels that the department of Psychology and this department would both benefit greatly if they establish closer cooperation. The syllabus needs to be revised and brought up -to-date in the light of recent developments in the fields of teacher education.

The Committee also recommends that the department may be shifted to the new Campus along with Departments of Psychology and Applied Psychology. It is also necessary that the department promotes research in the fields of examination reforms and guidance and counselling. It may also undertake short-term courses in service training programmes for college teachers. The Committee feels that it would be in the interest of the department if the B.Ed. classes are transferred to the colleges. If this be done the present accommodation may be adequate for its research and teaching activities. Later in the Sixth Plan period, the University may, think of providing a new building for the



The Committee, recommends that the following assistance be provided to the department:—

(1) Teaching Staff :

(a) First priority — Readers — 1 (in public Economics)

(b) Second priority — Professor — 1 (Open)  
Reader — 1 (Industrial Economics).

(2) Books and Journals :  
Under First priority Rs. 50,000/-

(3) Field work :  
Under first priority Rs. 10,000/-

The deptt. wishes to be recognised as a centre for special assistance in the field of urban Economics. This may be referred to the appropriate Committee.

7.14. *Department of History* : The present intake of the department is 150 students to the M.A. Class each year. Besides, students from Presidency College come for tuition in the department. Those possessing B.A. (Hons.) are qualified for admission in the department. The present staff comprises two Professors, three Readers, four whole-time Lecturers, five paid part-time teachers and five honorary part-time teachers. During the last five years, the department has produced five Ph.D.s and 12 candidates are now working for their Ph.D. degree.

The department wants to intensify research in Economic History. It also intends developing teaching and research in Social and Cultural History of India. The department has not developed any links either with the departments of Economics and Political Science or with the Centre for Social Sciences, Calcutta. It also has a programme to undertake a project on the History of Bengal since 1947.

The department is at present housed in the College Street Campus which is greatly overcrowded. The Committee recommends that the various deptts. of History be housed together in one place and formed into a centre for Historical Studies. This would permit greater co-ordination and collaboration. The Committee, recommends the following assistance to the department of History.

(1) Teaching Staff :

(A) First priority : Professor—1 (in Economic and Social History)  
(IPIL)

(B) Second priority : Reader—2 (one in Social History and  
(2R) other in Political History).

(2) Books and journals :

Under First Priority : Rs. 50,000/-

**7.15 Department of Ancient Indian History & Culture :—**

The intake of students in M.A. (Previous) is 75. The staff comprises of two Professors, three Readers and five Lecturers. The post of the Bagiswari Professor of Fine Arts has been vacant for a long time.

One post of Reader is also vacant. The department has produced during the last 10 years, 25 Ph.Ds. 25 candidates are engaged in doctoral research. The department has not established any links with Sanskrit and Pali departments and not even with the departments of Archaeology, History and Islamic History and Culture. The department was recognised as the Centre of Advanced Study by the U.G.C. but the status was withdrawn on the basis of an assessment made by the Committee appointed by the Commission. The Committee feels that the present staff strength is adequate and the department does not require any addition to its staff. However, an amount of Rs. 30,000/- may be provided to the department for the purchase of books and journals under first priority.

**7.16 Department of Islamic History & Culture :** The intake of students in M.A. (Previous) is 50. The department has a staff of one Professor, two Readers and four Lecturers. The posts of one Professor and two Lecturers are lying vacant. So the present staff strength is three Readers and three Lecturers. During the last five years, the department has produced five Ph. Ds. and 20 candidates are engaged in doctoral research. In its teaching programme, the department has a special bias towards Medieval Indian History. The department has not been able to make arrangements for tutorials and seminars on account of dearth of accommodation and teachers. It wants to introduce a special group on International Relations and requires additional staff for it. The Committee, however, feels that for this purpose assistance from the Political Science department may be obtained. The department has no links either with the Political Science department or with other sister departments.

The Committee was clearly and unanimously of the opinion that the name of the department should be changed. It should be renamed as the Department of Medieval History. It should start joint collaborative programmes with the departments of Ancient Indian History, History and Archaeology. The department would not require any additional staff but the vacant



posts should be filled. However, the department may be provided a grant of Rs. 30,000/- for the purchase of books and journals under first priority.

7.17 *Department of Archaeology* : The present intake of the department is 13 students in M.A. (Previous). 12 students are in M.A. (Final). It has a sanctioned staff of one Professor, one Reader and three Lecturers, but one Professor and one Reader are on leave so the actual strength of the department is three Lecturers. The department has produced two Ph.Ds. during the last five years. 8 candidates are engaged in active research. Some of the teachers of the department of Indian History and Culture, Geography and Anthropology are participating on a part-time basis in the academic programmes. The department provides a two years M.A. course in Archaeology. It is an active department and has undertaken fruitful excavations during recent years. The department wishes to introduce B.A. (Hons.) course in Archaeology. But the Committee does not support this idea. The proposal of the department to start courses on Archaeology for Egypt and South-East Asia is also not recommended. Egyptian Archaeology is already being looked after by the Archaeological Survey of India ; and as at present persons trained in the Archaeology of these regions are not available within the country and, therefore, a few persons will have to be sent for field studies to these regions.

The department should take advantage of the facilities provided in the Ashutosh Museum. Although, there are logistic difficulties even then it would be appropriate to take students to this Museum in batches for providing lesson. To provide a separate museum for this department would, in view of the limited resources, not be advisable.

The Committee recommends that the vacant posts of Professor and Reader be filled up immediately. The department may be provided Rs.30,000/- for books and journals, and Rs.20,000/- for field trips and excavations under first priority.

7.18. *Museology Department*:- The department is currently located in the Ashutosh Museum of Indian Art of the University. The teaching staff consists of one Reader, three whole-time Lecturers and part-time Lecturer. The department offers a two year M.A./M.Sc. course in Museology and the total intake of students is 12 (6 from arts and 6 from Science stream). It is one of the few departments preparing specialists in Museology to cater to the needs of the Museums of the country.

The syllabus is comprehensive consisting of three compulsory general papers on the various aspects of Museum ; and there

are two groups of optional papers (I) Archaeology, Arts and Anthropology (Group-A) and (II) Natural Sciences (Group-B). Each candidate is asked to offer one of the groups; in addition there are two practical papers. In general, the syllabus is quite comprehensive and up-to-date.

The research side of the department is rather weak and needs to be strengthened. The following recommendations are being made :—

(1) Teaching Staff :

(A) First priority - Reader - 1 (with specialisation in Biological Sciences)

(B) Second priority - Professor - 1 (with specialisation in either Archaeology or Anthropology and 2 tech. Asstants.)

(2) Field worker under first priority—Rs. 30,000/-

(3) Books and Journals under first priority—Rs. 25,000/-

(4) Grants for Scholarships to MA/M.Sc. students three each year from 76-77 Rs. 45,000/- under first priority.

7. 19. *Department of Journalism* :— The University has been conducting M.A. course in Journalism with the help of part-time teachers. This was introduced in 1970. It has an intake of 60 students, of whom about one-third are women. The department is running entirely with the help of the part-time teachers who are paid Rs. 150/—p.m. each. The Head of the Department is also a part-time teacher. There is, however, no inter-action between this course and the courses in the languages like English, Sanskrit, Bengali, Urdu, Persian and Arabic. The Committee found that the course does not include any language training nor does it impart knowledge about recent developments in the fields of Indian or World's History, International Relations, Diplomacy and Modern Economic, Social and Educational problems. The Committee recommends that it would be advisable if the course is reformulated and a fullfledged course in Journalism and Mass Communication is introduced by the University. If the University recasts the syllabus on the lines suggested above, the position may be reviewed during the Sixth Plan and assistance, if considered necessary, may be provided for the course.

7. 20. *Department of Philosophy* : The department has got 12 permanent posts and 10 part-time teachers in the department. The break-up of the permanent posts is this :—Professor—1, Readers—3 and Lecturers—8. The department has produced

33 research scholars during the past 10 years, and four research scholars who receive fellowships are working in the department at present. Like the other departments, this department also could not supply the exact number of all the research scholars registered for Ph.D. in the department. But roughly the number is said to be 15. The publications and researches done by some staff members of the department during the last five years are quite substantial in quantity, but very ordinary in quality. Most of the topics on which publications and researches have been done are very general in nature, without much scope for specialisation and depth. Moreover, the topics of the Ph.D. researches done during the last 10 years show not only much overlapping but also repetition of topics in some cases. On the whole, the research work and academic development of the department have not been impressive in the recent past. The department also seems to lack the required unity and co-ordination within the department because some of the information sought by the Committee was not available, although the information concerned only the work done by the teachers and the research scholars of the department.

Among the senior teachers of the department, a variety of specialisation is available at present which seems to be sufficient for catering to the needs of the present syllabus as well as the revised syllabus which is yet to be approved by the higher bodies of the University. The syllabuses, new as well as old, are very unsatisfactorily designed and they need much modification and improvement. They are not specific enough and there is some undesirable overlapping as well. Moreover, they have the serious defect of still continuing the practice of giving a substantial weight to technical psychology as differentiated from Philosophy of mind. This teaching of technical psychology in the Philosophy course is out dated and not worthwhile both from the viewpoint of the academic teaching of philosophy as well as the job-utility of this course. It is recommended that the syllabus be further revised keeping in view the modernisation of Philosophy.

The department admits 400 students for postgraduation every year, and proposes to start the M.Phil. Programme and also the tutorial system, if sufficient strength is given to it. In view of the large number of admissions, it is recommended that a Lecturership and a grant of Rs. 40,000/—for books and journals may be sanctioned to the Department under first priority.

The department has requested for recognition as a special research Centre in Philosophy and has given an estimate of about Rs. 3 lakhs as the annual expenditure for this Centre. This proposal need not be considered at the moment.

7. 21. *Department of Political Science* : The Department of Political Science was established as a separate department in the year 1948 and since then it has been attracting a large number of students to its postgraduate course. In this respect it can be called one of the major departments in the University. At present, it has 380 students on its rolls, of which 140 are in M.A. (I-Year) and 240 in M.A. (II-Year). During the last five years, 16 of its students were awarded Ph.D. degree. At present 16 scholars are working for their doctoral research and we were told that about 10 students seek admission to the Ph.D. course every year. The strength of the Faculty at present is two professors, (one of which earmarked for Public Administration is lying vacant), two Readers—(one of which is for Sociology) and four whole-time lecturers. Apart from these eight whole-time teachers, there are 12 part-time Lecturers also in the department. During the Fourth Plan period no teaching post was sanctioned. The number of whole-time teachers in the department as compared to other departments is meager. The M.A. course comprises of eight papers, six of which are compulsory papers, viz., Political Theory, Political Sociology, Indian Political System, Indian Political Thought and Movement, Public Administration and International Law. Besides these, as student has to select an optional group of two papers out of five groups for the teaching of which the department has provision at present. These groups are : - Socialist Thought, Sociology, Political Analysis and Research Methodology, local Government and International Law and International Organisation. Four more optional groups are provided in the syllabus, but due to paucity of staff, the teaching could not be started. The courses were revised and made up-to-date recently. The department is also conducting certain research projects and so far, seven research project financed either by the ICSSR or the UGC have been undertaken by this department. Of these, three have been completed and the reports of two have been published.

The department now proposes to introduce a M.Phil. course to which only selected students, not more than 10 will be admitted and after completing M.Phil will generally proceed to Ph.D. course. Apart from this the department has also a plan for the modernisation of the examination system which will involve introduction of the tutorial system and a process of continuous internal assessment.

Before considering the demands of the department for additional staff etc., the Committee recommends that the course of Sociology should be transferred to a new department of Social Studie which will also include Social Anthropology.

Therefore, keeping in view of this fact, that the department will become purely a Department of Political Science, the Committee recommends posts of two Readers and two Lecturers. (One Reader & One Lecturer under first priority and one Reader and one lecturer under second priority) and a grant of Rs. 40,000/— for books, journals under first priority.

As regards the demand of the department for the opening of a Centre for the Study of West Bengal State Politics, the Committee suggests that the department should apply to the Indian Council of Social Science Research for a project on the study of state Politics. As there is a Computer Centre in the University, the department may take its assistance and, therefore, no grant for equipment is recommended.

7.22. *Department of Commerce* :—The Department of Commerce is one of the biggest department in the University with an enrolment of about 2000 students in two shifts (day and evening) for M.Com. degree. This strength is spread over 14 sections. There are about 150 students in each section. The department also provides research facilities leading to the degree of Ph.D. in the areas of Applied Economics, Business Statistics, Accountancy and General Management. It has at the moment two research scholarships of Rs.250/—p.m. provided by the University to its Ph.D. students. The department has, so far, produced 15 Ph.Ds. and there are 25 students who are enrolled for Ph.D. degree. The department has also undertaken as many as 11 projects from the Planning Commission, ICSSR, Institute of Manpower Research etc. The present strength of the teaching faculty of the department is—Professor—1, Readers—4, Whole-time Lecturers—16, Part-time Lecturers—28 and Honorary Lecturers—9. The department is also planning to develop a special three-years post-graduate course leading to the award of Master's degree in Industrial Management for which the approval of the Syndicate has been obtained. In addition, the department is planning to offer an M.,Phil. course to train Ph.D. students and teachers in affiliated college. It also wants to strengthen the existing M.Com. Course by providing more areas of specialisations. For all these, the department has submitted proposals totalling (including a separate building) Rs. 91,15,000/- in financial terms. The department has asked for two Professorships and three Readerships, in addition to a separate building and some administrative staff and equipment. The Head of the Department told the Committee that the Department of Commerce of Calcutta University wants to establish collaboration with technology stream and as such the specialisations needed for new Professorships could be Production Engineering, Operations Research and Cybernetics. For three Readers, the

specialisations proposed by the Department are Sociology and Industrial Psychology.

Going through the various papers submitted by the Department of Commerce on their development programme and the recommendations of the Gani Committee, one gets an impression that clear lines on which the growth of Commerce Education in this University should proceed are being worked out and the confusion regarding the future role of Commerce in this University as an academic discipline is being cleared by removing the somewhat artificial difference between Commerce and Business Management. A healthy step in this direction has been taken by renaming the College of Commerce as the University College of Business Studies.

The three years Master's Course in Industrial Management (MIM) as a full-time day course is a major deviation from the established practice of offering two years Master's course in Indian Universities. Specialised advanced courses can be thought of mainly of one-year duration as is the case with most of the Universities in the West.

Proposals for M.Phil. Course have also been made out with five papers which have been suggested as course work for this. The M.Phil. programme rightly aims at preparing candidates in research methodology for doing Ph.D. work and also for bridging the knowledge gap that exists in our post-graduate programmes.

It is recommended that the UGC may recommend more space for the existing programmes and some space for research scholars and teachers. The present accommodation available to the department is grossly inadequate.

The department may organise post-B.Com. diploma courses, like those of Corporate Secretaryship, Industrial Relations and Personnel Management ; Marketing and Sales Management, Tax Planning and Management etc. which are very well needed in a city like Calcutta. These will also reduce pressure on M.Com. admission.

Taking into account the low strength of senior teaching faculty in terms of needs, it is suggested that this department may be sanctioned one post of Professor—with specialisation in Accounting and one Reader with specialisation in functional areas of business under first priority and three Readerships with specialisations in Industrial Sociology; Industrial Relations, Personnel Management and marketing under second priority. The Department should also be given a grant of Rs. 75,000/- under first and Rs. 25,000/- under second priority for acquiring books and periodicals mainly for research use and an equipment grant of Rs. 10,000/- under first priority.

Efforts should also be made to regulate admission to M.Com. course and reducing the number in each section to around 75 students. This may be accomplished by following a selective admission policy and by offering post-B.Com. diploma of job oriented natured as suggested above.

The number of research scholarships allocated to the department should be increased so that first-rate students are encouraged to take up research work on full-time basis. The M.Phil. programme which this department is envisaging should be offered only on whole time basis.

7.23 *Department of Law* : The Law College has got 6500 students on its rolls and almost all teaching is done by the part-time Lecturers whose number is 73. There are only three full-time teachers—one of which is a Principal and two are the Vice-Principals. This college has submitted proposals for starting LL.M. courses as full-time day course. At present each section of LL.B has a strength of about 150 students.

It is recommended that two Readers, one in first and one in second priority and two lecturers in second priority and Rs. 40,000/- under first priority for books, journals may be sanctioned to the department. Besides, the honorarium payable to part-time Lecturers who take 12 periods of lectures a week, should be increased from Rs. 250/- p.m. to Rs. 500/- p.m. The department should also be provided more space for its class rooms and teachers.

## 8. *Faculty of Science* :

8.1. *Department of Botany* : The Department of Botany which came into existence in the year 1918 had an initial intake of less than 10 students. It now admits 60 students every year. Of these 20 are admitted through the Presidency College and the rest by the University. Lectures and special paper practicals of all students are arranged in the department. Only in the general practicals, 20 students utilise the laboratory facilities of the Presidency College. Because of large number, the practical classes are held in two shifts with common theory classes in between the morning and the evening shifts. The students of the morning shift do not get ample time for practical work and are at a disadvantage vis-a-vis students of the afternoon shifts. This is a very unsatisfactory arrangement. The department is cramped for space for general practicals and staff rooms. Corridors are crowded with almirahs containing herbarium and museum specimen.

The department offers special papers in seven disciplines, namely, Cytogenetics, Mycology and Plant Pathology, Plant

Physiology, Taxonomy, Palaeobotany, Pharmacognosy and Microbiology. It also proposes to start some more specialised disciplines like Biosystematics and Radiation Biology, Molecular Genetics, Experimental Ecology etc.

There are 96 research scholars working for their research degrees, of which 52 are part-time workers and 44 are full-time research fellows who receive stipends from agencies like UGC, CSIR, ICAR, Atomic Energy Commission, the University etc. The department has recently introduced the Term system and the whole M.Sc. course has been divided into five Terms. This is indeed a welcome step. During the last 10 years, the department has published more than 500 research papers in Indian and foreign journals and has produced 77 Ph.D. and 6 D.Sc. The main thrust in the department is in the area of Cytogenetics and Cytochemistry in which the department has acquired reputation. The UGC has selected this department as Centre of Special Assistance.

*Development Plans :* The department has diversified its teaching and research programmes to several specialised branches keeping in view the job potential and modern developments in the Biological Sciences. However, it would be advisable to concentrate teaching and research in a few specialised fields in which the department has sufficient expertise and infrastructure to become a Centre of Advanced Studies. This will include the disciplines of Cytogenetics, Cytochemistry, Radiation Biology, Biosystematics and Molecular Genetics. Teachers in other specialisation may take advantage of individual Teachers' Research Schemes of the UGC for developing their fields;

*Requirements :* The minimum space requirement is a general laboratory to accommodate 60 students, staff rooms and a big room to store herbarium and museum specimens. For this an area about 5000 to 7000 sq. ft. may be provided preferably in the same floor by extension in the eastern block.

*Staff :* To augment the teaching and research activities, one Professor and Two Readers in the field of ultrastructure and Molecular Radiation Biology may be sanctioned. Besides, three technicians for Tissue Culture/Radiation Laboratories may be sanctioned.

*Equipment :* Although the department has acquired several sophisticated apparatus, certain additional equipment and spares are needed, A sum of Rs. 2.50 lakhs may be provided for this purpose.

*Green House :* During the last Plan period, the Green House was sanctioned but it is yet to be completed and commissioned. A sum of Rs. 1.00 lakh may be provided for Green



House Rs. 1.00 lakh may be provided to furnish cold rooms and Tissue culture.

*Books and Journals* : A grant of Rs. 1.50 lakhs may be provided for books, journals for the department library.

Grants recommended may be summarised as follows :—

- |  |   |
|--|---|
| 1. Teaching staff                            | (a) 1 Reader & 1 T.A in first priority<br>(b) Professor 1 ; Reader 1 & Technicians—2 in 2nd priority. |
| 2. Space                                     | About 5000 sq. ft. to 7000sq. ft.   |
| 3. Equipment including spares.               | (a) Rs. 2.0 lakhs in first priority<br>(b) Rs. 0.5 lakhs in second priority.                          |
| 4. Green House :                             | Rs. 1.00 lakhs in first priority  |
| 5. Cold room & Tissue Culture Lab furnishing | Rs. 1.00 lakh in first priority   |
| 6. Books and Journals :                      | (a) Rs. 1.00 lakh in first priority<br>(b) Rs. 0.50 lakhs in second priority.                         |

8. 2. *Department of Zoology* : The department has a total strength of 12 faculty members (2 Professors, 3 Readers and 7 Lecturers). 7 part-time Lecturers are also involved in the teaching programme. 55 students are enrolled in the M.Sc. (Part-I) and 55 in M.Sc. (Part-II). The committee was informed that the UGC has agreed to the introduction of a post-M.Sc. diploma course in "Animal Genetics". The Zoological society of Calcutta is also lodged within the premises of the Department. The departmental library has 3891 books and subscribes for 21 research journals. The research fields of the two Professors are "Fish Biology" and "Endocrinology" while those of the three Readers are "Cytogenetics", "Entomology" and "Malacology". Other disciplines in which research is being conducted in the department are "Parasitology and Protozoology", "Experimental

"Morphology" and Comparative Anatomy". 20 full-time research workers are enrolled for the Ph.D. degree.

During the Fifth Plan period, the department proposes to strengthen the existing teaching and research facilities. Looking to the teaching and research responsibilities of the department, the faculty needs to be strengthened. The department needs more space for additional research laboratories. It also needs a temperature controlled room. Library facilities need improvement; the department should subscribe to more research journals in order to meet the requirements of research workers in various disciplines. There is a case for strengthening of the department with respect to equipment.

The section on "Endocrinology" has been doing highly commendable work and has earned for itself an international stature. It deserves all possible assistance and encouragement. Good research work is also being carried out in "Cytogenetics", "Entomology" and "Parasitology and Protozoology" and these sections also need to be strengthened. The recommendations being made herein for additional faculty members are in the light of the above observations. It is also hoped that with the strengthening of the faculty the Department shall now be able to introduce the post-M.Sc. diploma course in "Animal Genetics".

The Committee did not notice any collaborative teaching or research effort between the Zoology Department and other sister departments. It is recommended that the Department should give a fresh look to the syllabi and to its approach to teaching at the postgraduate level.

The following assistance is being recommended for the Department of Zoology during the Fifth Plan period to strengthen its existing teaching and research facilities. These recommendations take into account the fact that the Department will also be one of the beneficiaries of such "Central Facilities" as those of "Instrumentation", "Workshop" and "Library", the establishment or strengthening of which during the Fifth Plan period is being recommended by the Committee.

*1st Priority :*

- |                       |   |
|-----------------------|---|
| 1. Staff :            | Readers—2 (one in Comparative Endocrinology and one in Protozoology or Parasitology). |
| 2. Supporting staff : | Technical Assistants—2 & Animal Keeper—1.   |

3. Building : 5000-7000 sq. ft. It is recommended that the entire floor on which the Department is presently located should preferably be made available to it.

4. Equipment : Rs. 3.5 lakhs.

- (a) Cryostat.
- (b) Physiograph.
- (c) Research Microscope with accessories for fluorescence microscopy & Photomicrography.
- (d) Surgical drill.
- (f) Cytophotodensitometer
- (e) Temperature Controlled Room Facility.

• *Note :* The department needs an ultracentrifuge and a spectrofluorometer. These should be taken care of under the "Central Instruments Facility" as other department are also in need of these instruments. There is also a demand for a Scanning Electron Microscope by various departments, including the Zoology Department. This, again, could be included as a "central facility" if the funds permit.

5. Books Rs. 1.00 lakhs.

## II. Priority :

- 1. Staff :
  - (i) Professor—1 (Cytogenetics/entomology)
  - (ii) Reader—1.
  - (iii) Lecturer—2.
- 2. Equipemnt including Repairs & Maintenance of Equipment : Rs. 1.25 lakhs
- 3. Books Rs. 0.50 lakhs

8.3. *Department of Physics :* The Physics department has had a glorious tradition, having had men like C. V. Raman, S. N. Bose, M. N. Saha, S. K. Mitra among its past professors. In recent years it had not been able to keep up this tradition. However, the Committee could see that ground was now being prepared for its revival. With the newly appointed staff, and the bright students it attracts, the Committee hopes that the department will again take its place among the front-rank physics departments in the country.

The present staff consists of 4 professors, 5 readers and 12 lecturers. The department had mentioned various areas of specialisation, but after some discussions these were grouped into solid state physics (theory and experiment), biophysics and nuclear physics (low and high energies, including cosmic rays). The department will do well to form viable critical size groups in these areas rather than diffuse its efforts. It was happy to note the efforts during the last year to generate a research programme in experimental solid state physics, with an emphasis on building equipment, in which for 7 or 8 staff members from different sections had got together and made a research proposals. These efforts need to be encouraged and supported. The newly appointed Palit Professor can be expected to build a school in theoretical solid state physics, and there is a good programme in biophysics too.

The equipment in the department, except the recently acquired electron microscope for biophysics group is out-dated, and the laboratories have to be re-equipped. In the light of above remarks, bulk of the equipment grant that is recommended should be used to build up the infrastructure of the solid state physics programme. Certain accessories would also be needed for the electron microscope. The electron microscope and the ultra centrifuge, that is requested, should be part of the central instruments facility. The department should also prepare to use the variable energy cyclotron. For this, it will need equipment as well as staff. A certain equipment grant in nuclear physics is being recommended, subject to the department taking steps to appoint experts who would be in position to use VEC effectively, and a detailed proposals being submitted. The positions that are recommended, and the vacant positions may be filled, keeping the above recommendations in view.

The Committee recommends the position of workshop instructor, so that the students may be given a training in work-shop practice. He may be attached to the central instrument facility.

With regard to the requested positions of scanner and emulsion technicians, the committee feels that these positions may be considered separately outside the plan in terms of a specific research scheme that may be submitted by the investigators concerned.

The Committee was not in favour of creating additional positions in electromics for teaching the course in electronics. In its view, it would be more desirable, within the limited resources available, to appoint readers in solid state physics, or nuclear physics, who may be experts in solid state electronics or nuclear instrumentation. The present staff, with such additions,

and collaboration with the Institute of Radio-physics, should be able to take care of the courses in electronics. The department may also bear upon expertise from Saha Institute of Nuclear Physics and the Bose Institute for taking some courses. There are possibilities of joint research programme with these Institutes, which also may be exploited.

At present the department spreads in an unplanned fashion in its building. It is cramped for space (it has much less space than the physics department of the Presidency college). The Committee was sad to see the manner in which the library of the department was arranged in a small room with books and journals heaped on top of each other on tables. The committee has recommended some additional space (8,00 sq. ft.). Since the new building will take some time to come up, it would be desirable to redistribute the existing space more rationally.

The Committee recommends that following assistance may be provided to the department of physics.

- A. Teaching Staff: Three Readers. 1. Exp. Solid state (Two in first priority 2. Proct Solid state and one in second priority 3. Bio-Physics.
- B. Books & Journals (a) Rs. 1.0 lakhs in first priority (b) Rs. 0.50 lakhs in second priority
- C. Equipment (a) Rs. 5.00 lakhs in first priority (b) Rs. 1.00 lakhs in second priority. (This does not include accessories for electronic microscope which are included in central instrumentation laboratory).
- D. Building About 7000 sq. ft.

8.4. *Department of Applied Mathematics*: It has an approved staff of 3 professors, 5 readers and 4 lecturers. 36 students are admitted each year for the two years of postgraduate course.

*Areas of specialisations in the department are* (I) Theory of Elasticity and Plasticity; (II) Fluid Mechanics; (III) Numerical and Functional Analysis and (V) Quantum Mechanics. Work is also being done in the Cyber atics, Statistical Physics, Thermodynamics, Information Theory, Nuclear Theory, Topology, Foundation of Geometry and General Relativity. Quite a good number of papers have been published in the department during the last five years in the branches given above. Besides, 20 part-time research scholars who are teachers in different colleges, there are 10 whole-time research scholars who get scholarships.

The library of the department is housed in the room of the professors & Head of the Department. We were informed that there are 7,000 books in the library. The department subscribes to 34 journals of which 19 journals are subscribed by the Centre of Advanced Study in Mathematics, and 15 journals by the department of Applied Mathematics. We understand that the Centre of Advanced Study status to the department has been taken away recently by the UGC. The department has passed through a bad time but it now shows signs of having come out of this difficult period and doing quite useful work. Since the library is housed in the room of the Professor & Head of the Department, it is very difficult for the teachers and students to make its free use. The timings of the library are the timings when the Professor and Head is present in his Office.

The department has produced 19 research scholars during the last five years. Space at the disposal of the department is insufficient and is distributed in two different buildings and floors in the same building. The department recently created Professor S. N. Bose Institute within it to commemorate the memory of the late National Professor S. N. Bose.

The library and offices of the Calcutta Mathematical Society which is generally managed by the Head of the department and other members of the department of applied mathematics are situated near the department of applied mathematics. The Calcutta Mathematical Society has a very good library of books and also of journals, which it gets on exchange with other International Societies, for the Bulletins which it publishes. We are glad to learn that the Head of the department of applied mathematics takes care that no journal subscribed by the department of applied mathematics is duplicated with the journals which Calcutta Mathematical Society gets on exchange.

The department requires the existing hydrodynamic laboratory, geo-physical laboratory and numerical laboratory to be strengthened. They also want to set up a elasto-mechanical laboratory. For the applied mathematics laboratory to be effectively utilised, steps must be taken to make it possible to make quantitative measurements, rather than only qualitative observations. The department requires additional space. The staff seems to be sufficient for the present courses, but if new courses are to be started and the areas already existing, are to be strengthened, then some more staff is required. Professor S. N. Bose Institute is doing useful work in organising national and international symposia and seminars. It should be helped in these efforts. However, it should continue to be part of the department (and not become a separate institute) serving as an umbrella for seminars, symposia and non-traditional inter-

departmental postgraduate course programme. The department may be given a professorship in theoretical physics to help in these programme.

The department should concentrate on only a few branches like numerical analysis, cybernetics, operations research, oceanography because it is not possible to develop all the fields that have been mentioned above. As operation research is gaining great importance in the country and abroad and is being used in industry, it is strongly suggested that a course in operation research be also started in the department with an intake of 10-20 students each year.

The Major Electrostatic Copier which the department has, may be kept as a central facility for the whole of the campus and not only for the department of applied mathematics. University may consider if there is sufficient work for the copier in the department, alone.

It is felt that the intake of 36 students each year be raised to 50 including operation research course. The difficulty that was pointed out by the Head of the department was that if he increased the intake, then the practical work would have to be conducted in shifts. If some more space and equipment is provided to the department, this difficulty can be solved.

The Committee found that some of the equipment in the department like the wind Tunnel and Kirnos Seismograph are out of order. These equipment should be immediately repaired.

There should be a rational distribution of space among the different departments. The department has insufficient space and should be provided more space. It is also felt that the space at the disposal of the applied mathematics department should be compact and should not be distributed.

Additional staff may be provided to the department if the department starts the course in operation research. Technical staff may also be provided. The present vacancies must be filled up.

The Committee recommends that following assistance may be provided to the department of applied mathematics :

A. Teaching Staff	1 Professor—Theoretical Physics
(a) First Priority	1 Reader—In Cybernetics/ Oceanography.
(b) Second Priority	1 Lecturer
	1 Reader in Oper. research.
	1 Lecturer

B. Books & Journals	Rs. 0.30 lakh in first priority Rs. 0.20 lakh in second priority
C. Equipment	(a) Rs. 0.75 lakh in first priority (b) Rs. 0.25 lakh in second priority
D. Seminar symposia	Rs. 0.50 lakh in first priority
E. Space	About 5000 sq. ft.

8.5. *Department of Pure Mathematics* : The sanctioned strength of the staff in the department is two Professors, four Readers and eight Lecturers. At present 1 Professor, 4 Readers, 5 Lecturers, five stipendary part-time teachers and two honorary part-time teachers are working. The department used to admit 300 to 350 students each year. But the Committee is glad to note that this year they have reduced the number to only 143 in M.Sc. (previous) though there are 300 students in M.Sc. (Final).

The reduction has been possible only because they are not admitting only honours graduates and not pass graduates which they were admitting in the past. The examinations are held in the department with the help of invigilators from the department as well as from outside the department. There was a complaint that mass copying was going on in all the examinations that were held in the department. The Committee is satisfied to note from the statement of the Head of the department that the department is trying to check mass copying and it has been reduced to a great extent.

There are five papers in M.Sc. (previous) class, all of which are compulsory. In M.Sc. (Final), a student offers three compulsory papers and two optional papers in any one of the following (i) Real Analysis ; (ii) Complex Analysis ; (iii) Geometry ; (iv) Topology ; (v) Functional Analysis ; (vi) Algebra. The subject of Numerical Analysis also figures in the syllabus but this is not being taught perhaps because there is no teacher in the department who can teach this subject.

The department has at present 5 research scholars on whole-time basis and 10 part-time research scholars who are teachers in different colleges. The number of research scholars in the department is very small because more than 5 research scholarships do not exist in the department. The department has produced seven Ph.D. during the last five years and has published 50 research papers. The workload of teachers is not more than 10 periods per week.

The teachers have big rooms at their disposal. The library of the department is situated in a big hall, but there are very few



books and journals. The library hours are the same as the teaching hours of the department. The students and teachers are not able to consult the library after teaching hours. The department subscribes to only 5 journals.

- The department has sought more scholarships so that it can attract greater number of research scholars. The department also wants to introduce a paper in Econometrics for which the post of a teacher has been requested for.

The department has large number of students. Even now the present strength is 140 in M.Sc. (previous). We feel that while it may be difficult to reduce this number, the department may try to reduce the intake to only 100 students; remaining students may seek admission to the department of applied mathematics. The department may also start an integrated course in mathematics as it exists in most of the universities in the country.

There should be only 50 students in the course in pure mathematics as well as in the integrated course. The Committee is against the suggestion to create a separate department for the integrated course. The name of the department may be changed to the department of mathematics.

Four teachers have left the department. Their substitutes have not been appointed. Even then the work of the department is going on smoothly. We, therefore, feel that no additional staff is needed even for running this integrated course. The substitutes for the four teachers who have already left may be appointed in areas which are needed for the integrated course. However, the department may be strengthened by providing additional staff.

The space at the disposal of the department seems to be adequate. There is a big room in which about 10 lecturers sit. The committee feels that this room can be easily converted into 8 cubicals. If this is done and one more room is converted into cubicals then practically every teacher will have a room to himself. The rooms of professors, readers and the retired professors are big enough and seminars can be conducted in those rooms which, we note is not being done.

The books which are used most in the department may be kept in a small room and the library room can be divided into a common room for the students of the department and a seminar room.

The following assistance is recommended for the department:  
of mathematics.

- |                        |   |   |
|------------------------|---|---|
| A. Teaching staff      | 2 Readers<br>(1 in first and<br>1 in second priority)             | Only if the department<br>starts integrated course<br>in mathematics. |
|                        | 2 Lecturers<br>(1 under second and<br>1 under third<br>priority). |   |
| B. Books &<br>Journals | (a) Rs. 0.75 lakhs<br>(b) Rs. 0.75 lakhs                          | under first priority<br>under second priority                         |
| C. Equipment           | Rs. 0.20 lakhs  | under first priority  |

8.6. *Department of Statistics* : There are two • professors • three readers and four lecturers in the department. The department has at present no whole-time research scholar, though there are six part-time research scholars. The space at the disposal of the department is quite sufficient. The department also acts as a service department in so far as it delivers a few lectures in the departments of Botany, Zoology and Agriculture. • Two lectures are delivered in the department of agriculture on the design of experiments whereas in the departments of botany and zoology, 15 to 20 lectures are delivered in the whole session on the analysis of the data. In the departmental library, there are 4400 books. The department subscribes to 119 journals out of the book grant of Rs. 4,000/- which is used entire for the subscription of the journals. For the purchase of books UGC makes ad-hoc grants. It has sufficient equipment. It gets an equipment, machine and appliances grant of Rs. 8,000/- per year out of which it purchases one or two calculating machines each year. The courses which are run in the department are quite upto-date. The department has tried to keep up its standard. Out of 20 students which are admitted each year to M.Sc. course, only one or two get first class.

The applied research unit of the department should be strengthened.

The department, at present, has a paper in operation research. It may be investigated if it can co-operate with the department of applied mathematics when it starts a course in operation research.

The department admits 20 students each year. It is suggested that the number may be increased to 30. The department may

also give courses in other departments, like botany, economics and the departments in the medical faculty where the courses in Statistics are needed.

The following assistance may be provided to the department of Statistics :

- |                                  |  |
|----------------------------------|--|
| A. Teaching staff : 3 Lecturers  | one under first and two under second priority. |
| B. Books & Journals Rs. 50,000/- | } Under first priority.                        |
| C. Equipment Rs. 20,000/-        |  |

8.7. *Department of Chemistry* : The teaching and research work in the department is carried out in 4 broad areas of Chemistry viz. Organic Chemistry, Inorganic and Analytical Chemistry and Physical Chemistry. Organic Chemistry, the major thrust of work has been the Chemistry of Natural Products including their synthesis and transformation, study of heterocyclic compounds of biological interest, Organo-metallic compounds and their application in Synthetic Organic Chemistry. In Inorganic and Analytical Chemistry, the major areas of interest have been Co-ordination Chemistry, Chemistry of Rare Earths, Thermodynamics, Kinetics and Mechanism of Inorganic Reactions; Structure of Inorganic Chemistry etc. In Physical Chemistry, research work has been carried out in study of Optical, Electrical and Magnetic Properties of Organic and Inorganic systems, theoretical chemistry, Theory of Electrolytes and Colloid Science etc.

The department has a UGC Special Assistance Programme for Chemistry of Natural Products. During the past 10 years the department conducted 63 research schemes, supported by UGC/CSIR/ICAR, Government of India, Ministry of Health, Government of West Bengal etc. and during this period research publications from the department exceeded 450 in various national and international journals of repute. The present academic positions are as follows : Professors—4 (three of which are endowments viz. Khaira Professor, Palit Professor and Ghosh Professor) ; Readers—5 (Physical, Inorganic, Organic, Inorganic/Analytical) and Lecturers—15.

The department has one fellow, two pool Officers, 5 research students supported by the University, 6 S.R.F. supported by agencies such as CSIR/UGC/ICAR, 3 research assistance, 31 J.R.Fs. supported by CSIR/UGC. In addition there are Honorary Research Workers in Organic (18), Inorganic (40) and Physical (19) Chemistry. The special facilities available in the

department include U.V. Spectro-photometer and one IR Spectrophotometer which at the time of the visit was not working due to want of accessories. The micro-analytical Laboratory facility of the department is available to workers in the Department as well as outsiders (on a token payment basis). The workers in the department also use facilities from other institutions in India such as CDRI, Lucknow (for I.R. and N.M.R.), BARC Trombay (E.S.R.), Saha Institute (special spectro photometer), Sindri Unit of FCI (X-ray). The department allows workers from other institutions and universities in West Bengal and outside to make use of its facilities.

The department proposes to develop 4 additional areas *viz.* Photo Chemistry, Organo Metallic Chemistry, Solid State Chemistry and Analytical Chemistry.

The department teaches only postgraduate courses for which 80 students are admitted by the department and 30 by the Presidency College.

The department since its inception in 1916 was headed by internationally reputed scientists like Archarya P. C. Ray, Professors J. N. Mukherjee, P. Ray, J. C. Ghosh, B. N. Ghosh, to name some, who have made valuable contributions and have brought this department to its present position of being one of the best departments of Chemistry in this country.

The growth of the laboratories in the department has been somewhat haphazard due to non availability of sufficient space. The teaching has to be organised in shifts. The morning shift starts at 6-30 a.m. and continues till 10.30 a.m. This is followed by lectures from 10.30 a.m. to 1-00 p.m. for the students of the morning shift as well as the evening shift (2-00 p.m. to 6-00 p.m.) This is not a satisfactory arrangement.

The library is confined to a small room approximately 600 sq. ft. in area. The library subscribes to most of the journals of interest and has multiple copies of text-books needed for the teaching programme but due to lack of space most of these are stacked on tables. The students do not have adequate space to sit and consult books/journals.

The library is open from 10-00 a.m. to 6-00 p.m. The hours cannot be extended due to non availability of extra staff. There is also the difficulty of subscribing to journals in time. The University finds difficulty in making advance payments with the result that journals for 1974 had not been received at the time of visit of Committee. On the other hand, this University appears to subscribe to two copies of the costly journal, 'Chemical Abstracts,' separately for the Chemistry and Applied Chemistry departments on the same campus. It may consider whether it should continue to do so in view of above mentioned difficulties.

The glass blowing facilities in the department are inadequate. The department has no workshop of its own. The available facilities from other departments do not appear to be satisfactory. There is no Technical person/Electronic Engineer to look after the maintenance/replacement/repair fabrication of small components.

The number of fellowships available to the department is not sufficient. The department gets 2 to 3 U.G.C. fellowships. The research students made a representation about the difficulties they experience in respect of non availability of equipments and insufficient contingency grants for their work. They also complained of residential accommodation since they are not admitted to the postgraduate hostela.

It is noted that Analytical Chemistry is included as a part of Inorganic Chemistry which appears to be somewhat unfair. During discussions it was pointed out that there are members on the staff who have specialised in Analytical Chemistry. In spite of this, it is neither offered as a special paper nor recognised as a section for teaching and research in the University.

The main thrust of the research work has been in the Organic Chemistry of Natural Products which is receiving Special Assistance from the UGC. This should continue to get major support out of the Fifth Plan allocations. In order that other sections also are developed, it will be desirable to have a separate allocation of funds for Inorganic and Physical Chemistry.

Among the various proposals for starting research work in additional areas, the committee felt that priority may be given to Analytical Chemistry for which the infrastructure already exists. Support should also be provided for developing other areas viz. Photochemistry, Organo Metallic Chemistry and solid State Chemistry. Existing vacancies in the department may be filled up without delay.

The following assistance is recommended for the department of Chemistry :

#### *Teaching Staff :*

##### *First Priority :*

1. Reader in Solid State Chemistry.
2. TA for Organic & Inorganic Chemistry.

##### *Second Priority :*

1. Reader in Photo-Chemistry/Organo Metallic Chemistry.
2. TA for Physical and Analytical Chemistry.

*Third Priority :*

A. 1. Professor

B. Books & Journals :

(a) Rs. 1.00 lakh under first priority.

(b) Rs. 0.50 lakh under second priority.

C. Equipment including strengthening of teaching laboratory specially in Physical and inorganic Chemistry and Research Laboratory solvents, servicing and maintenance of equipment, glass-ware :

(a) Rs. 4.50 lakhs in first priority.

(b) Rs. 2.50 lakhs in second priority.

D. Space — About 6,000 sq.ft.

8.8 *Department of Physiology* : This department takes each year 18 students for the B.Sc. (Hon.) course and 24 students for M.Sc. The Presidency College also takes 12 students for M.Sc. The theory classes for the latter are conducted jointly whereas the practicals are conducted in individual Institutions. This department is well known for its work in the field of work Physiology and Economics. It may be worthwhile for this department to continue to specialise in this field rather than trying to develop new fields such as nutrition and dietetics, metabolic biochemistry, microbiology etc.

Physiology is now taught in the University College of Science, the Presidency College and Institute of Basic Medical Sciences. Similarly Biochemistry and Nutrition Research are carried out in the Institute of Basic Medical Sciences as well as in the Physiology, Zoology, Botany and Biochemistry Departments of the Ballygunge Campus. It would be desirable that the three physiology centres form a coordinating committee and plan, to the extent possible, 'core' courses and try to use to the fullest extent expertise and physical facilities available in conducting teaching and research. Similarly all departments concerned with teaching and research in biochemistry and microbiology can form a coordinating committee and plan integrated courses.

The physiology department is badly in need of space and may be sanctioned about 4,000 sq.ft. (if possible the whole of the ground floor) and Rs. 4,00,000 for equipment (Rs. 3.00 lakhs under first and Rs. 1.00 lakh under second priorities), Rs. 1.5 lakhs for books (Rs. 1.00 lakh under first and Rs. 0.50 lakh under second priority) and two technical assistants (one under first and one under second priority).

8.9. *Department of Biochemistry and the Guha Institute of Biochemistry* : It is felt that there should be a definite understanding that the development should be planned in such a way that these two operate as a joint unit. The Vice-Chancellor assured the committee that fragmentation will be avoided in future even in other subjects and these two (as well as the Applied Mathematics Department and the Bose Institute) will operate as single units. Such a reorganisation would be in tune with the ideals and aims of the late Professor Guha who sought to develop the fields of biochemistry, nutrition and microbiology as a composite unit and tried to bring together not only the scientists in each of these disciplines but also those working in allied disciplines.

It would be desirable for this department to concentrate on Neuropharmacology, Vitamin Metabolism and Microbial metabolism.

At present this department admits 60 students for M.Sc. every year. There are 50 students working for Ph.D. In the last 5 years, 50 Ph.Ds. have come out of this department.

This department can initiate a 2-year evening course in Neurochemistry and nutrition for those who already have an M.Sc. degree and are working as teachers in colleges. This may, if necessary, be linked with the M.Phil. degree. This department can also give job-oriented diploma courses in the evening for people employed in schools, colleges, industries and hospitals. Examples of such courses are industrial microbiology, clinical biochemistry, dietetics, care and maintenance of experimental animals etc.

The department can also run workshops, seminars and symposia in selected aspects of biochemistry and nutrition. If possible, it should persuade the Guha Conference Committee to hold their annual conference in the Guha Institute.

Funds may be sanctioned for building about 2,000 sq. ft. laboratory and creating the additional posts of one Professor in Nutrition under first priority, and one lecturer and 2 technicians under second priority in addition to Rs. 4.00 lakhs for equipment (Rs. 3.00 lakhs under first and Rs. 1.00 lakh under second priority) Rs. 1.5 lakhs for books (Rs. 1.00 lakh under first and Rs. 0.50 lakh under second priority) and Rs. 50,000/- for conducting workshop, symposia etc. under first priority.

8.10. *Department of Geology* : The Committee had discussions with the members of the staff and research scholars regarding the courses that are being run, present facilities, utilisation of Fourth plan grants and the requirements of the Fifth Plan period, as were presented by the department.

The Department of Geology at present is running two post-graduate courses, one leading to the M.Sc. Degree in Geology (2 years duration) and a post-M.Sc. degree of one year duration (after M.Sc. Geology) in Applied Geology. The average intake of students for the M.Sc. course is 20% per year. In addition, 10 students are admitted in the Presidency College. They come to this Department for theory classes. Apart from the staff of the department of Geology, two members of the Presidency College and one member from an undergraduate college viz., Asutosh College participate in the lecture programme for the M.Sc. students.

During the last few years, only one or two students joined the post-M.Sc. Applied Geology Course. The reason for this intake was stated to be lack of availability of students with proper background. It appears that most of the students passing the M.Sc. course from this department are immediately absorbed in different professional organisations and whosoever remains joins either research or post-M.Sc. Applied Geology Course. In view of the poor intake, the Committee is of the opinion that it will be uneconomical as also unnecessary to run this post-M.Sc. Applied Geology Course. Instead, the present two-year M.Sc. (Geology) course should be strengthened and reoriented more towards Applied Geology.

At present, there are one Professor, four Readers and four Lecturers in the department. 2 posts of Lecturers are vacant. There are also three part-time teachers (two from Presidency College and one from Asutosh College). The speciality of the Professor is Structural Geology and Petrology.

There are at present four Research Scholars working for the Ph.D. degree. Of these, three are scholars under different schemes and one is holding the University fellowship. In addition, five part-time research scholars from the Geological Survey of India also work for their Ph.D. in this department. During the last five years, 5 or 6 scholars from this department and about 10 from Presidency College got the Ph.D. degree.

The main thrust areas of the Department are stated to be (i) Structural Geology and Petrology, (ii) Igneous and Metamorphic Petrology and (iii) Micropaleontology. In addition, the Department is also interested in a minor way in Ore Geology. The department appears to have been done some studies recently in the Singhbhum mineralised belt.

The department stated that it was able to utilise the Fourth Plan grants effectively; except that the posts of three Lecturers could not be filled. It appears that selections were held for



these posts but somehow the University has not made any appointment.

The department wants to start post-M.Sc. courses in Geophysical Prospecting and Mining Geology as it has a paper in Geophysics for the M.Sc. Geology students. However, the Committee felt that since the department does not have any basic geophysical equipment, it is not desirable to start a post-M.Sc. course in Geophysical prospecting. Similarly, the post-M.Sc. course in Mining Geology is also not recommended because of the lack of facilities in the Department.

The department wanted two more professors and one Reader to be added to their staff. They did not however, indicate any specialisation needed for any of these posts. There is no justification for such a large number of senior posts either from the point of teaching or research. The department wants two technical assistants one for instrumentation and the other for analytical work and requires additional space for the library.

There is no special equipment in the department and most of the equipment available, are not in working condition. The Department made a request for additional items of equipment worth Rs. 12.00 lakhs.

There is a departmental library which is taken care of by a librarian. 5300 books are available at present in the library and the department subscribes to 24 periodicals.

This department which was once known to be of high calibre is not maintaining that standard. It is very necessary to strengthen the Department both faculty-wise and instrument-wise. More than this, the Department should be encouraged to take up research and investigative work oriented towards exploration geology and economic geology taking into consideration the present problems facing the country. In the Presidency College there is adequate equipment and considerable amount of work of high calibre is being conducted but there appears to be little collaboration and co-operation between the Presidency College and the Department of Geology of the Calcutta University. No doubt two members of staff of the Presidency College teach in this department. But except for that, there is no other collaboration. Collaborative research projects of interest were never attempted. On the other hand, the Committee was told that the Presidency College is trying to create parallel facilities for conducting theory classes i.e. they would like to start separate postgraduate teaching in the College itself. This, in the opinion of the Committee, should be discouraged since it will be wastage of the resources available. Instead, a working formula should be worked out to bring the

Presidency College and this Department nearer to each other at the teaching, research and investigation levels.

The Committee observed that most of the students admitted to the M.Sc. course have not taken Mathematics at their B.Sc. level. Since the modern trends in geological sciences require a minimum basic knowledge of Mathematics, the Department should encourage students who have taken Mathematics at the B.Sc. level to join the M.Sc. course in Geology. Otherwise, the postgraduates of this department will not be able to participate in the work that is at present being planned in the country in the field of Geology.

Regarding staff requirements, the Committee is of the opinion that one post of Professor may be granted under first priority. This can be in any of the thrust areas listed above except the speciality of the present professor. In addition post of one technical assistant may be approved under second priority.

At present, there is no provision for field work expenses and since Geology is a field subject, it is necessary for the students to be trained in the field for a minimum length of time. The Committee recommends a sum of Rs. 30,000/- towards field work programmes of the postgraduate students and for meeting contingency expenses during the Fifth Plan period under first priority.

Even though the Department has listed equipment worth Rs. 12.00 lakhs which they would like to obtain, they have not mentioned anything about putting the existing equipment into operation. The Committee is of the firm opinion that it is necessary to get the existing equipment repaired as a first priority under the equipment grant. In particular, the optical spectrograph needs to be immediately repaired. Possibly, some foreign exchange also may be required in this connection. A sum of Rs. 50,000/- is recommended for the repair of this and other equipment. The optical spectrograph needs immediately the following requirements :

- |   |       |
|---|-------|
| 1. Higher Voltage source unit with Automatic Voltage Regulator.   | 1 set |
| 2. Hilger Exposure Control with Electromagnetic Shutter.  | 1 set |
| 3. Graphite Electrode Shaper  | 1 No. |
| 4. Water-cooled fully adjustable arc and spark stand with holders for irregular samples and electrodes. | 1 No. |
| 5. Eyepiece micrometer for spectrum reading   | 1 No. |

The chemical analysis laboratory of the Department is in poor shape. It is necessary to increase the facilities in the chemical analysis laboratory and a sum of Rs. 25,000/- is recommended for increasing the facilities of this laboratory.

In addition, a sum of Rs. 1.50 lakhs is recommended for obtaining X-ray defraction unit from indogeneous sources. A vehicle for field work may also be provided.

Thus, in all the following grants are recommended :

- |  |   |
|--|---|
| A. Repair of existing equipment, increased facilities for chemical laboratory and new equipment. | (i) Rs. 1.75 lakhs under first priority.  |
|  | (ii) Rs. 0.50 lakh under second priority. |
| B. Vehicle   | Rs. 30,000/- under first priority.        |
| C. Books & Journals  | (i) Rs. 1.00 lakh under first priority.   |
|  | (ii) Rs. 0.25 lakh under second priority. |

8.11 Department of Psychology : The department of Psychology of this University is the oldest in the country. But, at present it is in a bad shape. The post of Professor is lying vacant for about two years and it is not yet filled up. After the separation of Applied Psychology Department, the staff is depleted. It has acute shortage of space and the whole department is cramped in a small area. The department seems to be overcrowded due to intake of honours students. The department has an approved staff of one Professor, two Readers and six Lecturers. It has at present 2 Readers, 6 Lecturers and 2 part-time lecturers. They have produced quite a few papers in the last five years, and some of them are of good quality in the experimental area. They have undertaken six research projects since 1970 and some of them appear to be of good quality. 16 research scholars have been working in the department since 1965 and some of them have also done excellent work. In other words, the research basis of this department seems to be quite good and they should specialise more and more in experimental and developmental psychology.

It was noticed in the course of discussion that this department is in no way linked with the Applied Psychology department. The members of the staff are not even aware of the teaching and research programmes of the Applied Psychology

department. It is rather unfortunate that there is no co-ordination at the level of teaching and research between two sister departments which should be close to each other. The Committee is of the opinion that greater collaboration and co-ordination should be possible between two departments and some collaborative teaching work could be undertaken by both the departments.

The Committee is of opinion that the department of Psychology should be given enough space to expand its work. The laboratory is not very well equipped. Many of the old apparatus are out of use. As the department would like to specialise in Experimental work and it has already shown enough possibility in this area, its laboratory should be properly strengthened. The Committee recommends the following :

1. Staff : Reader : 1 (in experimental or developmental area) in second priority and  
Animal Keeper : 1 in first priority.
2. Books & Journals : Rs. 75,000/- (Rs. 50,000/- in first and  
Rs. 25,000/- in second priority).
3. Equipment : Rs. 1.00 lakh (Rs. 70,000/- in first priority and  
Rs. 30,000/- in second priority).

8.12: *Department of Applied Psychology* : This department was started in the year 1969. Only one Lecturer was appointed towards the end of 1969, and the remaining staff was appointed between 1970 to 1974. This department came into existence during the Fourth Plan period. This was not an original scheme of the University submitted to the UGC for the Fourth Plan development but during the course of Fourth Plan period, the University started this department with the approval of the UGC and with reallocation of Plan funds. There is, however, no record to show the academic basis on which this department was separated from the parent department. As a result of this, there is absolutely no co-ordination and co-operation between the two departments. This department wants to organise one year special preparatory course for those students who have not taken Psychology at the B.Sc level. The Committee feels that this preparatory course could be organised in cooperation with the Department of Pure Psychology which has qualified staff for the purpose. The ideal academic arrangement would be to comp-

pletely integrate both the departments so that the quality of teaching and research improves. As there is no academic justification for running the two separate departments, the Committee feels that the two departments of Psychology should be integrated during the Fifth Plan period.

The department has at present one Professor, four Readers and five Lecturers, two part-time Lecturers, one research assistant and one Psychomotrician.

Although the department was started in 1970-71, most of the staff were recruited only in 1972-73. The department has therefore not shown much progress in different areas of specialisation. During this period, two candidates have been awarded Ph.D. and 8 were registered for the degrees. They have taken one small research scheme sponsored by the West Bengal Government. They have not been able to procure funds from different sources for any other research project. No satisfactory reasons were offered as to why special research projects were not formulated and submitted to the various agencies which provide funds. Altogether it has published 18 research papers during 1970 to 1974 and fabricated five instruments for the use of staff and students. Since it is a new department the equipment position is not very good. They have 857 books in the departmental library and it subscribes to 16 journals.

The department has a good promise if it develops on the right lines. The department should specialise in specific areas of Applied Psychology. But care should be taken to give a good grounding to its students in the fundamentals of psychology. This problem may be solved to some extent if Hons. students in Psychology are submitted for the applied course. The plans submitted by the department have been drawn up on a very lavish scale. Taking into consideration the working of the department during the last four years or so there does not seem to be any justification for such expansion, during the Fifth Plan. The department should try to consolidate its research and teaching during this period and demonstrate its potentialities in the specific areas of Applied Psychology. The department should be encouraged to fabricate different kinds of instruments for this purpose and in addition to its own staff, it should take the help of the Central Workshop, which is being strengthened. The Committee recommends the following additional help during the Fifth Plan period :—

- |             |                                  |
|-------------|----------------------------------|
| (1) Staff : | Reader—1 in second priority      |
|             | Photographer-cum-Artist—1 and    |
|             | Mechanic—1 under first priority. |

- (2) Books & Journals : Rs. 75,000/- Rs. 50,000/- in first and Rs. 25,000/- in second priority).
- (3) Equipment : Rs. 1.00 lakh (Rs. 70,000/ in first and Rs. 30,000/ in second priority).

8.13. *Department of Anthropology* : Anthropology is one of the eldest departments of Calcutta University and is also the oldest department of Anthropology in India (1921). While it played a role in promoting teaching and research in the past particularly in eastern India, it has failed to modernise itself by incorporating the new trends in teaching and research. The hand over of the traditional anthropology emphasising the study of material culture, the primitive tribes, technology etc. persists and the intake of current anthropological materials continued to be at the low side. However, the revised syllabus for M.A. & M.Sc. Anthropology courses reflects some improvement and needs to be further modernised.

Of late, the department has done considerable work in the field of Social and Applied Anthropology and has produced 17 doctoral dissertations. In comparison to Social Anthropology Physical Anthropology, which was once its strong section, has shown a decline and during the last six years six researchers have been awarded Ph.D. degree in Physical Anthropology. Its third section, Palaeo-Anthropology is well staffed but owing to very nature of the section, it attracts the least number of students and has produced only two doctoral dissertations.

For the present, the department is conducting both honours and postgraduate courses and the students' intake each year is 16 in Honours course and 25 in the postgraduate course. The teaching staff of this department for both honours and Post-graduate courses consist of one Professor (General Anthropology), three Readers (one Social, one Physical and one Pre-history), 6 full-time and 3 part-time Lecturers.

The department has plans to improve the existing facilities for teaching and research and to make arrangements for specialised studies in Applied and Action Anthropology. It is also planned to shift the department of Anthropology to the proposed campus for the faculty of Social Sciences.

In the light of the above facts, the following assistance is recommended for the Anthropology department :

- (1) Teaching Staff : Readers—2 with specialisation in Applied Anthropology and Physical Anthropology (1 Reader in first and 1 Reader in second priority).

- (2) Books & Journals: i) Rs 30,000/- in first priority.  
ii) Rs. 20,000/- in second priority.
- (3) Field work equipment : i) Rs. 30,000/- in first priority  
ii) Rs. 20,000/- in second priority.

8.1 *Department of Geography* : The department has at present one Professor, two Readers, nine Lecturers and one part-time Lecturer. Its students came mainly from the Arts side and they have therefore to emphasize social and cultural Geography.

The Committee discussed with the faculty, the desirability of admitting students of Mathematics and Science, who would do better in Cartography and in soil Geography. The department has not given serious thought to do this so far and it would be desirable for it to do so. The department may also try to work out joint research proposals with the Department of Agriculture and Geology.

The Committee recommends following assistance for the department of Geography :

- (1) Teaching Staff : One professor under first priority in Social Geography.  
One Reader under second priority.
- (2) Technical Staff : One Technical Assistant in second priority.
- (3) Books & Journals : 1 lakh (Rs. 60,000/- under first priority,  
Rs. 40,000/- under second priority).
- (4) Equipment & Maps : Rs. 1 lakh under first priority  
Rs. 20,000/- under second priority.
- (5) Extended chasis Jeep for Field Work : Rs. 30,000/- under first priority.

9. *Institute of Basic Medical Sciences :*

9.1. There is a well-run and well-staffed hospital (Postgraduate Institute of Medical Education and Research) in the physical contiguity of the Postgraduate Institute of Basic Medical Sciences and this hospital/Institute too has its own departments of basic medical sciences. This Institute is administered by the Health Department of the Government of West Bengal. There is, however, no official working arrangement between these two Institutes. This has, it seems, resulted in lot of duplication in

the distribution of resources. Besides, members of the staff of the Postgraduate Institute of Basic Medical Sciences, especially those belonging to Department of Pathology and Microbiology and Pharmacology, have expressed their lack of access to hospital facilities without which, it can be understood, these departments cannot work efficiently. It is interesting that these departments, all the same are imparting postgraduate training, resulting in the award of postgraduate degrees by the University. One can understand this, because the staff employed have to justify their *raison de etre*. Evidently something went away at the planning stage of this Institute, and the stalemate continues, reducing this Institute of Basic Medical Sciences to perform its functions at a level which is even less than mediocre, and through no fault of its staff.

It is not the purpose of this report to provide any review of the inherent flaws of the basic organisational structure of the Postgraduate Institute of Basic Medical Sciences. This will require a separate review committee and longer time of visit with appropriate terms of reference. However, since the Committee has to define priorities in the development programmes taking into account limited availability of funds, it becomes relevant to recommend that immediate steps be taken to merge the two Institutes. This matter should be taken up at the highest level on top priority basis. This will solve at least some of the problems facing the departments of Pathology, Microbiology; Biochemistry and Pharmacology which together constitute more than half the Institute of Basic Medical Sciences. If this merger is not possible on account of lack of political will, the UGC should use its good offices to convince the University of Calcutta to hand over the Institute of Basic Medical Sciences to the Government of West Bengal. It is no use sinking in, the UGC money merely for the perpetuation of mediocrity. The alternative to this recommendation is the building, equipping and staffing of a separate hospital of the standard of postgraduate medical education and research. This is a very expensive proposition, and the Committee does not recommend it.

**9.2. Non-practicing Allowance :** The staff members employed by the Postgraduate Institute of Basic Medical Sciences having medical degrees do not get non-practicing allowance. Although no specific instance of any employee indulging in private practice was mentioned, it is understandable that if any employee so chooses, he can spend his time in private practice as there would be no legal or moral binding against it. No postgraduate institute of basic medical sciences can deliver the goods if the staff is not morally/legally bound to devote whole-time attention to the functions and duties required to be



performed by them. There should be a provision for giving non-practising allowance to all the employees holding medical degrees and explicitly forbid private practice. The financial implication for this will be well under Rs. 1.00 lakh at the current rates (30-40% of salary, not exceeding Rs. 600/- p.m.) and with the existing staff strength. The research fellows and scholars are excluded from this provision.

9.3. Central Facilities : Even after 12 years of its inception this Institute does not have central facilities such as (i) a library (ii) an animal house, (iii) an illustration unit, and (iv) a workshop for repair and maintenance. The result is that each department is diverting substantial sums and management for these facilities. Besides, some items of daily use (example-distillataion plant in Pharmacology Department) which are simple enough to be repaired locally, have remained untended for a number of years on account of the lack of repair facility.

The advantages that such facilities can provide to an institute of the nature under review need emphasis. During the Fifth Plan period an adequate provision be made for providing such facilities. Financial implications will require roughly a sum of Rs. 8.00 lakhs (Rs. 3 lakhs under first and Rs. 2.5 lakhs each in second and third priority) to be spent at once (subject to a satisfactory solution of the problems of the relation between the Institute and the Hospital discussed above) for purchase of machinery and equipment (in the total plan period), and about Rs. 3.00 lakhs annually under the recurrent head to meet the salaries and contingencies. The rough calculations for the recurring expenses have been made in the following manner ; and are intended to give a modest start.

(A) Staff :

- |                         |  |
|-------------------------|--|
| (1) Library :           | Librarian—1, Assistants—3 under first priority, Book-Binder—1 under second priority and Errand Boy—1 under third priority. |
| (2) Animal House :      | Veterinarian—1 under first priority and Attendants—4 under third priority.   |
| (3) Illustration Unit : | Photographer—1 ; Dark-room Assistant—1 and Artist—1 under second priority.   |

- (4) Workshop : Glass-blower—1, Technician (Electronics—1) Technician (Mechanical) 1 and Assistants—1 under first priority 1 Assistant under second priority.

(B) *Contingencies* : Contingent expenses under each head will be required e.g., for the animal house to purchase animals, food, cleaning material, cage repair etc., for illustration unit to purchase photographic papers, films, drawing paper, inks, slide binders etc., and similarly materials for workshop. It is estimated that even if begun on a modest scale, it will amount to a total of about Rs. 30,000/- under second priority.

(C) *Contingencies for Library* : For the library, regular expenditure will have to be incurred for purchase of books and journals. Cost of the annual subscription of standard foreign journals is anywhere between 30-50 dollars (Rs. 250-400). For some good journals like Journal of Physiology, or Index Medicus etc. it is much more. A very modest estimate would be about 100-120 journals to be subscribed and about 500-800 books to be added annually. Investment on books in the beginning shall have to be more. Expense will be required for stationery, postage, and materials for binding etc. A total grant of Es. 3.00 lakhs (Rs. 2.00 lakhs under first and Rs. 1.00 lakh under second priority) therefore, is recommended.

Once such facilities are provided, the existing separate provisions under these headings for each department would not exist. It also means that the items of common utility existing in each department for example journals and books currently accumulating in separate departments should find due place in the Central Library within consultation reach of every member of the Institute.

It must be mentioned, however, that these ventures will have a better co-efficient of viability if the adjoining post-graduate Institute of Medical Education and Research and the Institute under review gets merged together thus enlarging the clientele aspiring for there facilities. Otherwise these central facilities may remain under used (for use only of 5 small departments). Therefore, it is again emphasised that sufficient political skill be employed at the earliest to achieve this purpose.

9.4. *Need for an Administrative Head* : The Institute would also run better by having more coordination and better liaison at the interdepartmental level. It is advisable to create the post of a Director under third priority with an office staff or some kind of central administrative authority to ensure coordination for maximum utilisation of existing facilities as also for keeping a check on the departments becoming little kingdoms, and for optimum working of the central facilities as recommended

in the report. Having such an administrative set up may cost extra money but it will be wellworth on account of the saving it will bring by better coordination in the usage of existing facilities.

9.5. Subjects of research in the IBMS ought to be narrowed down to a few areas of excellence which should be tackled in depth. Number of students should be limited so that the existing facilities are not over-stretched. The Institute could benefit from short-term appointment of eminent scientists as visiting Professors against some of the vacant posts.

9.6. *Department of Anatomy*: The department has requested money for equipment, major items being electron microscope, cryostat, fluorescent microscope and accessories, refrigerators, air-conditioners, calculating machine, spectro-photo-fluorimeter, for staff and for books and journals. After making a due assessment of the type of research that is being carried on and the potential of the staff, the department may be provided money for the purchase of a cryostat, a fluorescent microscope with accessories and some other items like a refrigerator, and a calculating machine etc. during the Fifth Plan. Total allocation for the plan period may not exceed a sum of Rs. 1,50,000/- (Rs. 1.00 lakh under first and Rs. 50000/- under second priority).

9.7. *Department of Biophysics & Biochemistry*: There is no biophysics or biophysicist in this department as per the current understanding of what biophysics is. Therefore, the department should be renamed as the Department of Biochemistry. This department which is currently by two lecturers and a number of research workers already possesses equipments like PH meters, superspeed kymograph, deep freeze, refrigerated centrifuge Cryostat microtome, colorimeters, electrophoresis apparatus, spectrophotometers, etc. However, in the absence of the ex-Professor who was essentially a neurophysiologist and who has now left, this department clear cut thrust areas for research do not yet seem to have been marked out.

At present, there are only 3 M.D. students and 5 M.B.B.S. student studying for the Diploma in Basic Medical Sciences. The teaching and research activities seem to be a lowebb. As these are full-time courses with no scholarship attached and no hospital facilities attached, this department as well as other departments in this Institute are not able to attract good students. It is a pity that although right next door there is a huge hospital with post-graduate research laboratories but there is no official collaboration between these two institutes. Unless such a cooperation can be established, the prospects for this department do not seem bright.

The department of Biochemistry may be allocated Rs. 1.00 lakh for equipment under first priority and two Lecturers and two technical assistants under second priority.

9.8. *Department of Pharmacology* : This department too does not have a Professor. The present staff consisting of a Reader, three Lecturers and other research staff, however, seems to be quite enthusiastic in taking up research activities. The vacant job of the Professor should be filled up. It is recommended that a sum of Rs. 1.00 lakh be allocated under first priority to this department for equipment especially for polygraph and its accessories.

9.9. *Department of Pathology including Bacteriology* : This department has two Readers and three Lecturers with research staff, Professor's post is vacant here too. In the absence of a hospital, these people have been doing research work in the fields of experimental pathology. The Fifth Plan period should see the implementation of following with regard to this department :

- (i) Making two separate departments one for Pathology and the other for Microbiology (bacteriology name to be replaced by microbiology).
- (ii) integrating with the parallel departments of the post-graduate Institute of Medical Education and Research and
- (iii) filling of the vacant posts.

No recommendation for financial allocation is being made because no objective and worthwhile assessment is possible under the existing circumstances.

9.10. *Department of Physiology* : By and large this seems to be the only well run department of the P.G. Institute of Basic Medical Science with a Professor and Head of the Department, a Reader and four Lecturers with the usual complement of research staff. The department needs to be encouraged. However, they need to have a more precise earmarking of thrust areas of research. It is recommended that a sum of Rs. 2.00 lakhs Rs. 1.00 lakh each in first and second priorities be allocated to this department for equipment for the Fifth Plan period. The additional staff should be given according to the speciality areas required to be developed during this period.

9.11. *Summary* : The following should be the targets for the Fifth Plan period :

- (i) Accomplish the merger of the Post-graduate Institute of Basic Medical Sciences and the Post-graduate Institute of Medical Education and Research. Create sufficient political will to achieve this end.

- (ii) Create administrative set-up which ensures coordination between department to obtain maximal utilisation of existing facilities and to avoid under-usage of the available equipment.
- (iii) Abolish private practice of the basic medical scientists.
- (iv) Create central facilities like library, illustration unit, animal house and workshop for repair and maintenance. These facilities will be more viable and economic if the merger takes place.
- (v) Appoint an appropriate committee to review, evaluate and provide guidance for channelizing the research activities into avenues which are most relevant to national needs.
- (vi) The recommendations for the departments which will be least affected by merger, i.e. Departments of Physiology and Anatomy, are given. These are also the best of existing five departments. Some recommendations have been given for the other three departments, i.e. (i) Pathology and Bacteriology, (ii) Biochemistry (iii) Pharmacology.

None of these three departments enjoy the presence of a Professor, and their development has been stunted. This, in a way, may be of advantage when many issues stemming from negotiations of merger will come up for solution on account of the extra legspace that becomes available to the staff employed in the P.G. Institute of Medical Education and Research. *The input into these departments should be restricted till appropriate decisions about merger are made and the Professors and Heads take up positions in their respective departments.*

#### 10. Establishment of New Departments :

10.1. *Department of Sociology* : The University of Calcutta has been teaching Sociology (two papers) as a part of Political Science since 1911. One post of Professor in Sociology was created in 1955 with funds from a private endowment and M.A. syllabus of the subject was passed by the Academic Council in 1958. However, in view of certain difficulties a separate department of Sociology could not be established so far, and the post of Professor could not be filled up. The University of Calcutta as well as the students of Calcutta expressed their strong desire to have a separate P.G. department of Sociology in the first priority basis.

It is recommended that as Sociology is one of the basic Social Sciences, it should be sanctioned by the UGC on first priority basis. It should function in very close collaboration with the Department of Anthropology which has now strong Social Anthropology bias. Moreover, in the proposed syllabus submitted to us, it has a strong Social Anthropological bias. The Reader in Sociology currently working in the Department of Political Sciences may be transferred to the proposed Department of Sociology and the post of Professor in Sociology available with the University should be filled.

The following assistance be made available to the Universities by the UGC for establishing department of Sociology during Vth Plan.

1. Teaching Staff : Readers—2 (one with specialisation in Social Anthropology & the other in Sociometry).  
Lecturers—(2) (1 Reader and one Lecturer each in first and second priorities).
2. Books & Journals : Rs. 50,000/- under first priority.
3. Equipments : Rs. 20,000/- under first priority, and Rs. 10,000/- under second priority.
4. Furniture : Rs. 10,000/- (UGC Share) under first priority.

10.2. *Foods and Nutrition Department, Home Science* : There are 8 Lecturers with a background in Chemistry, Physiology, Biochemistry and Home Science at Vihari Lal College of Home Science. Professor S.K. Mukherjee of the Applied Nutrition Department of University College of Science is also teaching in this college. From this year, they have started M.Sc. (Foods and Nutrition) and admitted 15 students. Judging from the physical facilities and expertise available, it seems they have started this course in a hurry, before establishing a strong programme for undergraduates.

This course may have a greater probability of success, if it is run by a coordinating committee consisting of Professors of Biochemistry, Physiology and Applied Nutrition in the University College of Science, Basic Medical Sciences, the All India Institute of Public Health and the Home Science College. The students should get facilities for practical work in all these institutions.

The college should admit only 10 students per year and follow strictly the syllabus prescribed by the ICAR for Foods and

Nutrition courses in Home Science faculties in Agricultural Universities.

If this is possible, a staff of one Reader in Foods under first priority and one Lecturer in Institution Management under second priority and Rs. 1,00 lakh for equipment and Foods laboratories (Rs. 75,000/- in first and Rs. 25,000/- in second priorities) and Rs. 50,000/- for books under first priority may be sanctioned. This support should be conditional, subject to the University taking steps mentioned earlier.

10. 3. *Life Science Centre* : The life Science Centre of the Calcutta University was created in 1968 at the University's own initiative without any formal concurrence of the UGC though, beginning from 1971-72, the latter gave it an assistance of Rs. 18,000 p.a. for library and certain miscellaneous heads of expenditure. The Committee was informed that the Centre has introduced a post-M.Sc. course in Life Science from 1974 and has been organising an integrate lecture course for post-graduate Bioscience students of the Calcutta University; it has also organised symposia and summer institutes. The Life Science Centre has a small library and only one temporary Assistant on its staff.

The development proposals of the Life Science Centre during the Fifth Plan period are to the tune of Rs. 13,25,000 and include, as the first priority, recruitment of regular staff (Professor-1; Coordinator, Reader-1, Lecturers-3; Research Assistants-2 and Librarian-1) as well as construction of a building. The consolidated Fifth Plan proposals of the Calcutta University, however, include only the posts of Professor-1, Reader-1 and Lecturers-2, besides recurring expenditure of Rs. 85,000 per annum and non-recurring expenditure of Rs. 5000 for this Centre.

The Committee noted that the Calcutta University already has well established department of Botany, Zoology and Biochemistry with long traditions of teaching and research and could visualize two possibilities for the development of a Life Science Centre. The Centre could either come up and flourish as a meaningful collaborative exercise between these and some other departments (such as those of Physiology and Biophysics with its Electron Microscope) or it may emerge as a totally new and its Electron Microscope) or it may emerge as a totally new and separate entity with its own building, equipment, library and teaching and supporting staff.

The second of the above alternatives would amount to unnecessary duplication of the facilities and would seem to be a difficult proposition in view of meagre resources available. The Committee, therefore, actively considered the first possibility

—the development of a Life Science Centre through the collaboration of various departments with a maximum utilisation of the facilities already available with them and held prolonged discussions on the question with the teachers of these departments. Should such an idea have taken a concrete shape, it would perhaps have been worthwhile to channelize some funds for its promotion. However, it appeared that the concerned departments were rather lukewarm to the idea of pooling their resources for the purpose.

In the ultimate analysis, therefore, the Committee takes the view that the present thinking of the University behind the development of the Life Science Centre is not likely to take it far. Consequently, it does not feel inclined to recommend the development proposals of this Centre in their present form. However, the committee would recommend collaborative teaching and research programme among the departments concerned so that a more meaningful proposal for the development of a Life Science Centre may develop in due course.

10. 4. *Department of Oceanography & Meteorology* : The Committee found no interest in this proposal during its discussion in the existing relevant departments and therefore does not recommend the starting of such a new department during the Vth Plan period in view of limitation of resources.

#### 11. *Miscellaneous Schemes* :

11. 1. *University Printing Press* : The printing press was set up in 1912. It has a total staff of 207 persons including 118 technical personnel. The machinery is mostly out-dated and out-moded. The total value of the types in use is estimated to be Rs. 5.00 lakhs. the annual turnover is about Rs. 10.00 lakhs. The press has printed a number of standard books, research works and text-books. Every year, about 15000 to 20000 copies each of 10 to 12 titles are printed.

The University has proposed extension of the building and purchase of machinery in its Fifth Plan development proposals. The Committee was rather disappointed to note that the press has not been organised on a commercial basis and is said to be running at a loss. The press had an income of about Rs. 3.50 lakhs per year during 1971-72 to 1973-70 whereas its expenditure has been about Rs. 13.00 lakhs per year of which about Rs. 10.5 lakhs is spent on payment of salary etc. to the staff. It is not understood how the Press is running at a loss since the entire examination work is being undertaken by the press and a large number of copies of the books are also brought out every year. In case the cost of printing has gone up owing to the out-dated machines, the University should have replaced these machines either by ploughing back the profits or by utilising



the depreciation fund. The Committee was informed that the depreciation fund has been used for paying the salaries of the staff. The Committee was not happy at this situation. The Press has not been properly managed and accounts have not been maintained. The annual balance-sheets were not available. In view of this situation as well as in the absence of annual balance-sheets indicating the profit and loss position, the Committee does not feel inclined to recommend any assistance for the Press.

The Committee would, however, like to suggest that the press budget and financial transactions should be separately recorded and attempts should be made to register the Calcutta University Press as the Private Limited Co., under the Company Act, 1956 so as to provide functional autonomy to enable it to run on sound lines. This form of organisation has recently been adopted by most of the University Presses in Western World like, Clarendon Press (Oxford University), Rottardown Press etc. This will enable the press to pay incentives and other bonus to its workers and will bring the press within the framework of industrial legislation for providing various social security benefits to the workers. The share capital of the press may be provided by the Calcutta University and attempts should also be made to get quality participation and loans from State agencies, like West Bengal Industrial Reconstruction Corporation, the State Finance Corporation, the various nationalised banks functioning in the State. The Calcutta University will not have to pay for the share capital as it may be allotted shares in lieu of the revalued price of the present building, plant and machinery and other estates. Organising press as a Private Limited Co., will also enable it to attend to the business of printing and publishing of material from outside sources and thus earn reasonable profits for contributing dividend to the University's share capital and for ploughing back retained earnings for modernisation and expansion of the press. Since almost all share capital of the press will be owned by the Calcutta University, it will have the right to appoint the Directors and through them the staff. It will continue to have full control over the affairs of the press through the board of Directors and as such the present position of the University will not in any way be compromised under the firm organisation.

11.2. *Central Laboratory* : In each campus (namely Ballygunge and upper Circular Road campus and Basic Medical Sciences campus (subject to resolution of problems discussed earlier) there should be a central instrumentation laboratory which will be in charge of all equipment which cost more than one lakh. This laboratory may be under the charge of an instrumentation technologist in the grade of a Reader/Professor with three technicians to assist him. These posts may be

approved under second priority. This section may be given a contingency grant of Rs. 15,000/- per year. This section can give a course in Instrumentation technology to all M.Sc. students, maintain all the costly equipment so that the students can go there and use them and also get departmental instruments such as colorimeter, pH meter etc. repaired. A grant of Rs. 25.00 lakh (Rs. 15.000 lakh under second and Rs. 10.00 lakh under third priorities) for equipment including accessories for electron Microscope of Biophysics group which is to be treated as part of the Central Instrumental facility.

11.3. *Animal House* : For students taking subjects such as biology psychology biochemistry and home science, animal experimentation and/or study of animal behaviour should be part of the curriculum. To cater to these departments, an animal house can be established with a senior person in charge. This may again be an independent section with the status of a department. It should be possible for this section to run appropriate courses for students from home science, psychology, zoology and biochemistry. This section can take the responsibility to breed animals and supply them accordingly to specification to the different departments. An amount of Rs. 1.00 lakh (Rs. 75,000/- in first and Rs. 25,000/- in second priority) and the post of Animal Keeper under first priority may be sanctioned for Animal House.

11.4. *Central Workshop* : It would be desirable to set up a central workshop for the whole University consisting of electrical, mechanical and refrigeration divisions as well as glass blowing section. Rs. 2.5 lakhs for equipment, Rs. 10,000/- for contingencies, Rs. 1.00 lakh for shed under first priority and four posts of Mechanics including Supervision (two under first and two under second priority) may be approved for the Central Workshop.

11.5 *Central Library* : The Central Library of the University which was established in 1937 is housed in a 10 storeyed building with a floor area of 80,000 sq. ft. (gross) distributed on 10 floors. Three lakhs books are available in the Central Library and have been stacked in 50,000 Sq. ft. of shelves in five stack floors covering an area of about 36,000 sq. ft. of floor area. The library has three reading halls for 700 students which occupy an area of 22,000 sq. ft. The library remains open for 13 hours (7.00 A.M. to 10.00 P.M.) on working days and six hours (11.00 A.M. to 5.00 P.M.) on Sundays. The library is subscribing to 601 journals in Science and Technology and 410 in Humanities and Social Sciences. The budget estimates of the university for 1975-76 indicate an expenditure of Rs. 8.91 lakhs on the library. In 1973-74, the University spent Rs. 2.14 lakhs on books and Rs. 2.79 lakhs on journals. The library staff includes

one Librarian, one Deputy Librarian, four Assistant Librarians and 128 Technicians and other staff. This does not include 13 posts of technical staff which are lying vacant. The post of Librarian has also been lying vacant for long and the Deputy Librarian is officiating as Librarian since June, 1970. The library has four divisions, the Acquisition Division has at present a staff of 8, processing-of books division, 16, Circulation and Public Relation Division—55 and Administration Division—49.

The Fifth Plan proposal of the University for the development of the Central Library includes air-conditioning of at least one floor, reprographic facilities, vacuum cleaners, establishment of binding unit and additional posts of one Deputy Librarian, 8 Assistant Librarians, two Cataloguers and three technical assistants.

It would be desirable to include students's representatives in the library committee. Each campus should have a common library Hall where a reasonable number of copies of standard text-books, major references in each subject and journals such as chemical abstracts are kept. Each department should be allotted a separate book grant and instructed that it should order two copies of important books and references, one for the central library Hall and the other for the departmental library.

The central library should be opened from morning 8.00 A.M. to 10.00 P.M. It should also have ancillary facilities. The Committee recommends a grant of Rs. 35.00 lakhs for books and journals for Central Library and Libraries on different campus (Rs. 15.00 lakhs under first and Rs. 10.00 lakhs each under second and third priorities) and Rs. 20.00 for equipment under first priority including Xerox Machine for Central Library. The University should also take immediate steps to fill up the post of Librarian and 13 posts of technical staff.

11.6. *Extension of Science Block* : The University in its development plans has proposed vertical extension of the Science Block building at 35 Ballygunge Circular Road. It proposes to add two floors on the existing eastern block on an area of 17,600 sq. ft., the total estimated cost of which including installation of lift would be about Rs. 32.00 lakhs. The University has also proposed horizontal extension of the other science buildings at 92 Acharya Prafulla Chandra Road. It proposes to have a five floor additional building at the site of the Hydro-dynamic laboratory on an area of 39,000 sq. ft. at a total cost of Rs. 15.00 lakhs. The Committee realises the need for providing additional space to the science departments some of which are very much cramped. The Committee, therefore, recommends that the proposal of the University for the extension of the two science

buildings may be accepted and assistance on usual sharing basis be provided to the University by the Commission. The total estimated cost would be about Rs. 47.00 lakhs. The U G C may provide Rs. 1.00 lakhs under first and Rs. 8.50 lakhs under second priority.

#### 11.7. *Extension of Humanities/Social Science Buildings :*

The University has proposed horizontal extension of the education department building at 95 Syamaprosad Mookherjee Road. The University proposes to construct a basement for 4 storeys with foundation for another six storeys. The approximate built up area for basement and four storeys would be about 8,500 sq. ft. and the cost is estimated to be about Rs. 12.00 lakhs. The University has also proposed both horizontal and vertical extension of the Ancient History and Archaeology department building at Hazfar Road. It proposes to add one floor to the existing three floors of the building on an area of 4,600 sq. ft. at an estimated cost of Rs. 6.00 lakhs and construction of a four storeyed building on the adjacent vacant land with stronger foundation to take another four storeys at a later stage at a total cost of Rs. 20.00 lakhs. The Committee recommends that the proposal of the University be accepted and the Commission may provide assistance for this purpose on usual sharing basis. The total estimated cost would be about Rs. 38.00 lakhs. The U G C may provide Rs. 9.50 lakhs each under first and second priorities.

11.8. *Teachers' Quarters :* The University has proposed construction of 32 quarters for teaching staff at C. I. T. Plot at Maniktala. The University proposes to have two blocks of four storeyed building having an area of 2,367 sq. ft. in each floor and consisting of two three room flats in each floor. In addition, the University proposes to have another two blocks of four storeyed building having an area of 2054 sq. ft. in each floor and consisting of two room flats in each floor. The University would have to provide common service like construction of roads, sewers, tubewells and lighting arrangements for the teachers' hostel. The entire project is estimated to cost Rs. 30.00 lakhs. The Committee feels that residential quarters for teaching staff are needed to attract persons from other states. The Committee, therefore, recommends that the U G C may provide assistance for construction of 32 staff quarters on usual sharing basis and recommends a grant of Rs. 8.00 lakhs under first and Rs. 7.00 lakhs under second priority as U G C Share.

11.9. *Students' Hostel :* The University has 11 men's hostels and 5 women's hostels which can accommodate 1127 male students and 301 female students. 623 seats in men's hostel

and 245 seats in women's hostel are earmarked for post-graduate students while the rest are intended for undergraduate students. The University does not have any hostel specifically for research students. The research scholars in their meeting with the Committee stressed the need for providing a hostel exclusively for them. The hostel facilities available for post-graduate students should also be made available to research scholars. In case the University finds it difficult to provide residential accommodation to research scholars, the University may explore the possibility of establishing one more hostel for students and the U G C may provide assistance on usual sharing basis for this purpose if funds are available. The total estimated cost may be about Rs. 8.00 lakhs. The U G C may provide Rs. 4.00 lakhs as its share under second priority.

11.10. *Sports Complex* : The University has proposed establishment of sports complex at a total cost of Rs.10.00 lakhs. The Committee feels that in view of the other important programmes which the university proposes to introduce for development of academic activities, the proposal for sports complex could be formulated and considered under student welfare or any other similar programme outside the Fifth Plan allocation.

11.11. *Fellowships* : Many departments complained about insufficient funds available for research fellowships. It may be desirable to allot 50 junior fellowships at an estimated cost of Rs. 10.00 lakhs. In this connection, many research students complained that there is a difference more in the fellowship amount given by the UGC and the University. It would be desirable to have a uniformity. If the University does not have enough funds, they can reduce the number of fellowships offered instead of paying lower amounts.

11.12. *Faculty Improvement* : For the improvement of the Faculty the Committee recommends that an amount of Rs.5.00 lakhs may be provided to the University (Rs. 2.00 lakhs each in first and second priorities and Rs. 1.00 lakh in third priority).

11.13. *Visiting Faculty* : Almost all the departments have special teaching and research programmes to execute and would like to invite experts/specialists as visiting professors on short-term basis. The Committee supports the idea, especially in those subjects/specialisations in which suitable persons are not available for appointment on a permanent basis. The Committee recommends that a provision of Rs. 5.00 lakhs may be approved for the purpose (Rs. 1.00 lakh under first and Rs. 2.00 lakhs each in second and third priorities).

11.14. *Publication of Research Works* : A number of teachers in various departments are interested in getting their research

works published and require financial assistance for this purpose. The Committee recommends that an amount of Rs. 1.00 lakh each in second and third priorities may be approved for the purpose.

11.15. *Use of out-station research facilities* : Every year, a number of teachers and research students, especially those doing research in science subjects, have to go to other centres for getting their research results analysed. An amount of Rs. 50,000/- is recommended for this purpose under first priority.

11.16. *Extension Lecturers, Seminars, Exchange Programme etc.* : The Committee recommends that an amount of Rs. 1.00 lakh each in first, second and third priorities may be provided to the University for organising extension lectures, seminars etc.

## 12. Financial Implications

A summary of the financial implications of the recommendations made by the Committee under three Priorities is given below (The figures are in lakhs of Rupees and represent UGC share. The ceiling of assistance for Calcutta University is Rs. 300 lakhs).

S. No.	Item	First Priority	Second Priority	Third Priority	Total
1.	Spill over	22.09	..	..	22.09
2.	Scheme approved in Fifth Plan before Committee's visit.	3.25	..	..	3.25
3.	Books & Journals*	35.60	16.80	10.00	62.40
4.	Equipment*	39.70	29.05	12.50	81.25
5.	Building & Furniture	32.60	29.00	..	61.60
6.	Other Schemes	9.70	6.30	5.00	21.00
7.	Research Fellowships	10.00	..	..	10.00
8.	Staff	24.00	25.40	2.95	52.35
Total :		176.94	106.55	30.45	313.94

\* (The amount includes basic grants of Rs. 7.00 lakhs for books and Rs. 10.5 lakhs for equipment already approved during the Fifth Plan Period). Departmentwise details of grants recommended for books, equipment, building and other items are given in *Annexure V & VI* and of teaching and other staff in *Annexure —VII*.

13. The Visiting Committee is grateful to the Vice-Chancellor, Registrar, and other University Authorities for providing all facilities to the members of the Committee at the time of their visit to the Calcutta University.

### Half Yearly Progress Report

University of ... .. College

Progress Report for the Half year Ending

1. Name of the Institution/Department.
2. Total Non-recurring grant received so far (year-wise)
3. Matching share by the University/State Government amount paid by the University during the last three years for the purchase of books and journals on scientific and technical subjects.
4. Total grants available.
5. Expenditure incurred (amount actually paid out) during the half-year under report.
6. Progressive total of grant spent upto the end of the half year (i) Commission's share (ii) from University's share (iii) Grand Total.
7. Net unspent balance in the hands of the University/College on the last day of the half year.
8. Description of the steps taken in implementation of the schemes for which grants have been paid and the progress achieved (including commitments made and orders placed).
9. Estimated non-recurring expenditure during the next half year.

*Registrar.*

### Progress Report for Release of Funds

University of ... Department of ...

1. Name of the Scheme : Building/Equipment/Library Books etc.
2. Number and date of sanction letter of UGC approving the scheme.
3. Total cost approved.
  - (a) Share of the UGC
  - (b) Share of University/State Government.
4. Total amount received
  - (a) from UGC and
  - (b) from University / State Government against
  - (3) above.
5. \*Total expenditure actually incurred (c) bills paid for work done or supplies received.
- 6. Balance, if any, on hand from amounts received.
7. Amount required to be released to meet expenditure likely to be incurred in the next three-six months.

*Registrar*

---

\*N.B.—This may not include any amounts relating to orders placed or likely to be placed, commitments entered into, or amount earmarked for specific items likely to be obtained in future.